

# UPPER COOK INLET COMMERCIAL FISHERIES ANNUAL MANAGEMENT REPORT, 2002



by

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and

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## INTRODUCTION

The Upper Cook Inlet (UCI) management area consists of that portion of Cook Inlet north of the latitude of Anchor Point and is divided into the Central and Northern Districts (Figures 1 and 2). The Central District is approximately 75 miles long, averages 32 miles in width, and is further subdivided into six subdistricts. The Northern District is 50 miles long, averages 20 miles in width and is divided into two subdistricts. At present, all five species of Pacific salmon (*Oncorhynchus*), razor clams (*Siliqua patula*), and Pacific herring (*Clupea harengus pallasii*) are subject to commercial harvest in Upper Cook Inlet. Harvest statistics are gathered and reported by five-digit statistical areas and sub-areas (Figure 3).

### *Salmon*

Since the inception of a commercial fishery in 1882, many gear types, including fish traps, gillnets, and seines have been employed with varying degrees of success to harvest salmon in UCI. Currently, set (fixed) gillnets are the only gear permitted in the Northern District, while both set and drift gillnets are used in the Central District. The use of seine gear is restricted to the Chinitna Bay Subdistrict where they are employed sporadically. Drift gillnets have accounted for approximately 50% of the average annual salmon harvest since 1966 with set gillnets harvesting virtually all of the remainder (Appendix A.1-5).

Commercial salmon harvest statistics specific to gear type and area are available only back to 1954 (Appendix A.6). Run-timing and migration routes utilized by all species overlap to such a degree that the commercial fishery is largely mixed-stock and mixed-species in nature. Typically, the UCI harvest represents approximately 5% of the statewide catch. Nearly 10% of all salmon permits issued statewide are for the Cook Inlet area.

In terms of their economic value, sockeye salmon (*O. nerka*) are by far the most important component of the catch followed by coho (*O. kisutch*), chum (*O. keta*), pink (*O. gorbuscha*) and chinook salmon (*O. tshawytscha*) (Appendix A.7).

### *Herring*

Commercial herring fishing began in UCI in 1973 with a modest harvest of bait-quality fish along the east side of the Central District and expanded in the late 1970's to include small-scale sac roe fisheries in Chinitna and Tuxedni Bays (Appendix A.8). The total herring harvest has averaged well under 400 tons, having an exvessel value below \$200,000 – which makes it one of the smallest herring fisheries in the state. Since 1998, the exvessel value of this fishery has been far less than in prior years, with an exvessel value of less than \$20,000 each of the last four years.

Because the glacial waters of UCI preclude the use of aerial surveys to estimate biomass of herring stocks, the management approach utilized has necessarily departed from the standard techniques employed in the more traditional herring fisheries. Gillnets are the only legal gear for herring in Upper Cook Inlet, with set gillnets being used almost exclusively. Harvests are generally concentrated in the Clam Gulch area (bait herring) and in the Snug Harbor and Magnetic Island areas of Tuxedni Bay, and near Clam Cove and Camp Point in Chinitna Bay (roe herring).

Beginning in 1988 in Tuxedni Bay, significant decreases in herring abundance and a shift towards older age class herring were observed, resulting in the closure of Tuxedni Bay by emergency order prior to the 1992 season. In Chinitna Bay, and along the eastside beaches, similar declines began to materialize after the 1990 season. As a result of these declines, a Department proposal to the Alaska Board of Fisheries (BOF) to open the UCI herring fishery, by emergency order only, was submitted. This proposal passed and became regulation for the 1993 season, ending a long period with fixed opening dates of April 15 on the east side and April 22 on the west side of the Inlet. This action effectively closed this fishery until the herring stocks recovered. Beginning in 1998, the Upper Subdistrict was reopened for two days per week, from April 15 to May 20, to assess the status of this population. The herring fisheries on the west side of Cook Inlet remained closed until the status of the east side stocks was determined. In addition, the department submitted proposals to the BOF to restructure the herring fishery to two 30-hour periods per week, beginning on Mondays and Thursdays. These proposals included pre-season registration requirements as well as stipulating that fishermen must report their harvest within 12 hours of the closure of a fishing period. The proposals were passed in the form of a management plan prior to the 1999 season. The management plan was amended by the BOF prior to the 2002 fishing season, extending the closing date for the fishery an additional 11 days to May 31.

### ***Razor Clams***

The commercial harvest of razor clams from UCI beaches dates back to 1919. Harvest levels have fluctuated from no fishery for as many as eight consecutive years to production in excess of half a million pounds (live weight) in 1922 (Appendix A.9). The sporadic nature of the fishery has been more a function of limited market opportunities rather than limited availability of the resource. Razor clams are present in many areas of Cook Inlet, with particularly dense concentrations occurring near Polly Creek on the western shore and from Clam Gulch to Ninilchik on the eastern shore. The eastern shoreline has been set aside for sport harvest exclusively since 1959 and all commercial harvests since that time have come from the west shore, principally from the Polly Creek and Crescent River bar areas. A large portion of the Polly Creek beach is approved for the

harvest of clams for the human food market. Bait clams may be taken only outside of this approved area, except that a limit of 10% shell breakage is allowed for sale as bait clams in this fishery from the certified area. No overall harvest limits are in place for any area in regulation; however, the department manages the commercial fishery to achieve a harvest of no more than 350,000 to 400,000 pounds annually. Virtually all of the commercial harvest has come by hand digging, although regulations prior to 1990 allowed the use of mechanical harvesters (dredges) south of Spring Point, or within a one-mile section of the Polly Creek beach. Numerous attempts to develop feasible dredging operations were largely unsuccessful due to excessive shell breakage or the limited availability of clams in the area open to this gear. Currently, the use of mechanical harvesters is not permitted in any area of Cook Inlet.

## **2002 COMMERCIAL SALMON FISHERY**

The commercial harvest of 3.7 million salmon in UCI in 2002 was approximately equal to the average harvest for the last 49 years (Table A.6.). This was also the highest total salmon harvest since 1997. The exvessel value of \$12.5 million is poor by recent exvessel standards, which have ranged as high as 120 million dollars (Table A.7.). As is the case statewide, prices paid for all salmon, and sockeye salmon in particular, have plummeted recently (Table A.11.), thereby depressing exvessel values even in moderate sized salmon returns. Sockeye salmon escapements to three of the five monitored systems (see table below) in UCI exceeded established goals, while the Yentna River final escapement was approximately 11,500 fish below the lower end of the escapement goal.

System	2002 Escapement	Lower Goal	Upper Goal
Crescent River	62,833	25,000	50,000
Fish Creek	90,326	20,000	70,000
Kasilof River	226,682	150,000	300,000
Kenai River	957,924	750,000	950,000
Yentna River	78,591	90,000	160,000

### ***Chinook Salmon***

The 2002 harvest of 12,069 chinook salmon (Table 4) was about half of the long term average harvest (Tables A.1. and A.6.). The two fisheries where chinook salmon are harvested in appreciable numbers in UCI are in the Northern District and in the Upper Subdistrict. The 2002 chinook salmon harvest level was again primarily a reflection of reduced fishing time in the Upper Subdistrict due to an average to below-average sockeye salmon return to the Kenai River.

In 2002, the exvessel value for chinook salmon was estimated at \$326,000 - which is approximately 2.8% of the total exvessel value (Table A.7).

Created by the BOF in 1986, and conducted under the direction of the Northern District King Salmon Management Plan, a minor fishery occurs each June for set gillnets in the Northern District. Each participant is allowed one 35-fathom gillnet and a minimum distance of 1,200 feet must be maintained between nets (twice the normal distance). Prior to 2002, fishing was permitted for six hours each Monday in June until the quota of 12,500 chinook had been harvested, or until the regular season opened on June 25. Harvest levels approached or reached the quota in the first years of the fishery, then declined substantially in the early to mid 1990s, and now appears to be slowly gaining strength again, following trends in Northern District stock abundance. When dealing with the annual variation in abundance of Northern District chinook salmon, it had been the policy of the BOF to maintain the balance between user groups, as defined in the management plan, through Department-generated emergency orders. This resulted in one to four periods being fished each year.

Prior to the 2002 commercial salmon season, the BOF adopted changes to the Northern District King Salmon Management Plan, which changed the opening date of the fishery to an earlier time period. The fishery now opens on the first Monday on or after May 25 and cannot exceed three total periods. The area from an ADF&G regulatory marker located one mile south of the Theodore River to the Susitna River is only open for the second regular Monday period; in 2002, that period was June 3.

As was the case in 2001, the outlook for the chinook salmon return to Northern District streams was very positive for 2002. The resulting catch was 270 chinook from the first period, 810 from the second period and 667 from the third period. The harvest of 1,747 chinook salmon in the commercial fishery was rather modest, as it appeared overall run strength was very good. The harvest during the first period was much reduced due to strong southeast winds out of Turnagain Arm, which greatly impacts the western shore north of Tyonek harvest. Escapement objectives were achieved or exceeded in most surveyed streams.

The Kenai, Kasilof and East Forelands sections set gillnet fishery harvest in 2002 was 9,478 chinook salmon. The sonar count of late-run chinook salmon into the Kenai River was 41,807 fish with an estimated 11,554 fish harvested in the recreational fishery, leaving an escapement of approximately 30,000.

## *Sockeye Salmon*

Management of the Upper Cook Inlet sockeye salmon fishery integrates information received from a variety of programs, which together provide an in-season model of the actual return. These programs include Offshore Test Fishing (OTF), escapement enumeration by sonar and weir, comparative analysis of historic commercial harvest and effort levels, and age composition studies. Two additional developing programs (genetic stock identification and in-district sonar enumeration) are currently not funded and further development is dependent on future funding).

The OTF program employs a chartered gillnet vessel fishing standardized stations along a transect crossing Cook Inlet from Anchor Point to the Red River delta (Shields 2003). The program provides an in-season estimation of sockeye salmon run-strength by determining fish passage rates (computed by correlating the vessel's daily catch with subsequent commercial harvests and escapement) and fitting these rates to the appropriate historic run-timing profile (Table 1). In 2002, the program was again conducted aboard the F/V *Corrina Kay*, captained by Roy Self.

Hydroacoustic devices to quantify salmon escapement into glacial rivers were first employed in UCI in the Kenai and Kasilof Rivers in 1968 and expanded to the Susitna River in 1978 and the Crescent River in 1979 (Davis 2002). Operations followed standard procedures in all systems in 2002. Weirs on Fish Creek (Knik Arm) and Packers Creek (Kalgin Island), operated by ADF&G Sport Fish Division and Cook Inlet Aquaculture Association, respectively, provided daily escapement counts for those systems. The weir on Packers Creek was not operated in 2002 and no counts are available for this system. This year's escapement counts can be found in Table 2, while Table A.10. provides historical escapement data.

UCI commercial catch statistics refined to gear type, area, and date are available back to 1966. Currently, all commercially harvested salmon, whether sold or kept for personal use, are recorded on fish tickets and entered into the statewide fish ticket database. The 2002 commercial catch by gear type, area, and date can be found in Tables 3 through 7. Total harvest by statistical area and average catch per permit are contained in Tables 8 and 9. A summary of emergency orders can be found in Table 10 and a summary of fishing periods by gear type and area in Table 11.

Inseason determination of the age composition of sockeye salmon entering the principle rivers of UCI frequently provides information helpful in estimating the stock contributions in various fisheries. During the 2002 fishery, approximately 31,000 sockeye salmon were examined from catch and escapement samples (Tobias and Willette 2003). The age composition of adult sockeye salmon returning to monitored systems is provided in Table 12.

The preseason forecast in 2002 was for a total return of 3.7 million sockeye salmon, with a harvest estimate (sport & commercial) of 2.2 million fish. The forecasted return to the Kenai River of 1.7 million sockeye salmon resulted initially in an escapement goal target of 600,000 to 850,000 past the sonar counter at river-mile 19. The UCI harvest of 2.8 million sockeye salmon was 26% more than the preseason forecast (Appendix A.14) while the total return of sockeye salmon to UCI (Tobias and Willette 2003) was 29% more than forecast (see table below). Returns to all systems in UCI were variable, with the Kenai River component being the most dramatic at 72% more than the preseason forecast.

<b>2002 UCI Total Sockeye Salmon Return</b>			
System	Forecast	Actual	Difference
Susitna	451,000	286,000	-37%
Kenai	1,713,000	2,954,000	72%
Kasilof	787,000	713,000	-9%
Crescent	141,000	98,000	-31%
Fish Creek	95,000	134,000	41%
<b>TOTALS</b>	<b>3,700,000</b>	<b>4,770,000</b>	<b>29%</b>

Sockeye salmon prices at the beginning of the season were \$0.50 to \$0.60 per pound. Typically this price increases significantly by the end of the season, but for the past few year's prices have not changed dramatically from the beginning of the year to the end of the season (Table A.11.). The total exvessel value in UCI for sockeye salmon was \$10.7 million, which was 92% of the total UCI exvessel value for salmon (Table A.7.).

The first commercial sockeye salmon fishery to open in UCI in 2002 was the Big River fishery. Operating under the Big River Sockeye Salmon Management Plan adopted in 1989, a small set gillnet fishery takes place in June in the northwest corner of the Central District. Between June 1 and June 24, fishing is allowed each Monday, Wednesday, and Friday from 7:00 A.M. to 7:00 P.M. Permit holders are limited to a single 35-fathom gillnet and the minimum distance between nets is 1800 feet, three times the normal separation. Targeting an early run of sockeye salmon returning to Big River, this fishery also encounters chinook salmon migrating through the area. In the plan, the by-catch of chinook salmon is limited to 1,000 fish, although harvests in recent years have been well below that level. The 2002 fishery began on June 3 and produced a total harvest of 5,600 sockeye salmon and a chinook salmon catch of 536. Effort was light, with just eight permits making landings at the peak of the fishery, as compared to past years where effort levels peaked at 33 permits.

The second fishery to open in 2002 was the Northern District chinook salmon fishery. This fishery is conducted under The Northern District King Salmon Management Plan, which was created by the BOF in 1986 and modified in 2002. Under this plan, a single set gillnet per permit is allowed in the entire Northern District for a 6-hour period (7:00 A.M. to 1:00 P.M.) per week on three consecutive Mondays beginning the first Monday on or after May 25. However, the area from one mile south of the Theodore River to the Susitna River is open to fishing the second regular Monday period only. This is generally the most productive area for harvesting chinook salmon in this fishery. Other restrictions include a 1,200-foot separation between nets, twice the normal distance, and a harvest cap of 12,500 chinook salmon. The chinook salmon harvest during the 2002 fishery was 1,747 fish, well below the 1986-2001 average harvest of 5,404 fish, and about equal to the recent 5-year average (1997-2001) harvest of 1,811 chinook salmon (Table 3). Harvests since 1995 have been reduced due to lower returns in 1996 and 1997 and due to registration requirements that now prevent many Central District fishermen from participating in this fishery.

The next fishery to open was the set gillnet fishery in the Western Subdistrict of the Central District. Harvesting primarily sockeye salmon bound for the Crescent River, this fishery opens on the first Monday or Thursday, on or after June 16<sup>th</sup>. The fishery has a regular schedule of two twelve-hour weekly fishing periods throughout the season, unless modified by emergency order. Following a period of record returns in the mid-eighties, the Crescent River sockeye salmon return fell off sharply in recent years, resulting in closures of the local set gillnet fishery and closing the southwest corner of the Central District to drift fishing. Beginning in the late 1980's, sockeye salmon returning to the Crescent River began experiencing a downturn in production, which resulted in severe restrictions to the commercial fishery in order to meet escapement goals. In 1999, the BEG for this system was lowered in response to decreased productivity in Crescent Lake (Edmundson and Edmundson 2002). In 2002, early season harvests and escapement to this system were good enough that no early season restrictions were implemented to either the drift or set gillnet fisheries in this area. On July 1, it became apparent that the lower end of the escapement goal was assured and continuous fishing was allowed 24 hours per day in the set gillnet fishery in the Western Subdistrict south of Redoubt Point until August 5. The harvest from this area was approximately 29,000 sockeye salmon. Due in large part to declining returns and previous closures to the fishery, few permit holders (10-15) participate, so even though fishing time was extended for all of July and into August, the upper end of the escapement goal was exceeded by nearly 13,000 sockeye salmon. The final escapement into Crescent Lake was 62,833. A program of gathering limnological samples from Crescent Lake throughout the summer to monitor zooplankton populations that were severely depressed was terminated in 2001 due to lack of funding. The depressed zooplankton populations had revealed a slight improvement prior to the assessment studies being halted. The short-term outlook for sockeye salmon production from this system remains uncertain (Edmundson and Edmundson 2002).

In February 2002, the BOF made substantial changes to the management plans that govern the commercial sockeye salmon set gillnet fishery in the Upper Subdistrict of the Central District. The early part of the season is managed under a new plan, The Kasilof River Salmon Management Plan (5AAC 21.365). In the Kasilof Section, set gillnetting now opens the first regular period on or after June 25. From June 25 through July 7 the department may not allow more than 48-hours of additional fishing time by emergency order per week (Sunday through Saturday) and also must close the fishery for 48 consecutive hours per week. Beginning July 8, the Kasilof Section is now managed in combination with the Kenai and East Forelands Sections. Specifically, from July 8 through July 20, or until an assessment of Kenai run strength has been made, the department may not allow more than 24-hours of additional fishing time by emergency order per week in the Kasilof Section. There are no mandatory window closures until an assessment of the return shows that more than two million Kenai River sockeye salmon can be accounted for. If necessary, the department may limit regular and additional fishing time during this period to within ½ mile of the shoreline in the Kasilof Section if the Kenai and East Forelands Sections are not open for the fishing period. If the Kenai River sockeye salmon run strength is determined to be less than two million fish, and the department feels that the Kasilof River OEG of 300,000 may be exceeded, an additional 24-hours of fishing time per week may be allowed within ½ mile of the shoreline in the Kasilof Section after July 15.

The amended Kenai River Late-Run Sockeye Salmon Management Plan (5AAC 21.360) states that beginning July 20, or after a Kenai River sockeye salmon run strength assessment is made, three options are available for management of the set gillnet fishery in the Upper Subdistrict. First, if the Kenai River sockeye salmon return is less than two million fish, there may be no more than 24-hours of additional fishing time per week in the Kasilof Section. If the Kenai and East Forelands Sections are not fished during regular or additional openings, the department may limit regular and additional periods in the Kasilof Section to within ½ mile of the shoreline. There are no mandatory window closures on Kenai River sockeye salmon returns of less than two million fish. The second management option is for Kenai River returns of between two and four million sockeye salmon. In this scenario, the department may allow up to 36-hours of additional fishing time per week and will close the Upper Subdistrict set gillnet fishery for 48 consecutive hours per week. If the Kenai and East Forelands Sections are not open, the department may limit regular and extra periods in the Kasilof Section to within ½ mile of the shoreline. Finally, for Kenai River sockeye salmon returns exceeding four million fish, the department may allow up to 60-hours of additional fishing time per week and will close the Upper Subdistrict for 36 consecutive hours per week. Again, if the Kenai and East Forelands Sections are not fished, the department may limit regular and extra periods in the Kasilof Section to within ½ mile of the shoreline.



In 2002, the Kasilof Section opened to set and drift gillnetting, per the Kasilof River Management Plan, on Thursday, June 27. Because the fishery was closed until that date, the 48-hour mandatory closure was fulfilled for the week. Escapement levels in the Kasilof River had already exceeded 50,000 by June 27, resulting in two 24-hour emergency orders being issued to extend set gillnetting in the Kasilof Section from Thursday, June 27 at 7:00 p.m. until Saturday, June 29 at 7:00 p.m. Extra fishing time outside of regular periods for drift gillnetting can only be granted in the Kenai and Kasilof “corridors” and standard practice limits drift gillnetting to daylight hours as darkness precludes enforcement of the offshore boundary. Drift gillnetting was thus extended to the Kasilof corridor on Thursday June 27 from 7:00 p.m. until 11:00 p.m. and on Friday, June 28, from 5:00 a.m. until 11:00 p.m. and again on Saturday June 29, from 5:00 a.m. until 7:00 p.m. The sockeye salmon harvest during this first period (June 27-29) was approximately 79,000 fish, with set gillnets taking 74,100 and the drift fleet harvesting 5,000. Both drift and set gillnets fished their regular 12-hour period on Monday, July 1, prior to being closed for 48 consecutive hours in compliance with the new management plan. After Thursday’s (July 4) regular period, both set and drift gillnets were extended for the same time period and area as the previous week, which in this case meant through Saturday, July 6 at 7:00 p.m. The harvest from this three-day period was approximately 280,000 sockeye salmon, with set gillnets taking 127,000 and the drift fleet harvesting nearly 153,000. On Thursday, July 4, 192 boats participated in the fishery, averaging 705 sockeye salmon per boat, which was a very good harvest for this time in July. The Kasilof River sockeye salmon escapement had reached nearly 100,000 by the time the Kenai Section opened.

The Kenai and East Forelands sections opened as scheduled on Monday, July 8. The preseason forecast of 1.7 million sockeye salmon to the Kenai River resulted in an initial escapement goal range of 600,000 to 850,000. The drift gillnet harvest for July 8 was more than 250,000 sockeye salmon, with 331 boat deliveries averaging 764 sockeye salmon per boat, which was a stronger than expected harvest for the return as forecast. By July 9, the Kasilof River sockeye salmon escapement had reached 110,000 fish, well ahead of where it needed to be to stay within the BEG range of 150,000 to 250,000. Therefore, an emergency order was issued for set gillnetting in the Kasilof Section on July 10 for eight hours, but only within ½ mile of the shoreline, which was in compliance with the new management plan, if the Kenai and East Forelands sections were not fished.

The first mandated drift restriction, to the Kenai and Kasilof sections (“the Corridor”) was executed during the July 11 regular period. On Saturday, July 13, an emergency order was issued for 16-hours of fishing in the Kenai and Kasilof Sections for drifters and in the Upper Subdistrict for setnetters. The drift fleet had a very good harvest for a corridor period, averaging more than 720 sockeye salmon per boat (155,000 total), with much of that being concentrated in the Humpy Point area. Setnetters in the Kasilof Section harvested more than 83,000 sockeye salmon, which was the

second highest daily harvest for the year. Had this extra fishing period not been used, and considering the fact that the Kasilof River sockeye salmon escapement level was nearly 125,000 by this date, it is very likely that the BEG range for this system would have been exceeded.

The regular period was fished by both set and drift gillnets on Monday, July 15, with a total harvest of approximately 750,000 sockeye salmon, which again was stronger than expected for a forecasted return. Because the Upper Subdistrict set gillnet fishery was still being managed for a Kenai return of less than two million sockeye salmon, the 24-hour limitation on emergency order hours per week was still in effect. To attempt to slow down the escapement rate into the Kasilof River, an emergency order was issued for set gillnetting in the Kasilof Section on Wednesday, July 17 for eight hours, but only within  $\frac{1}{2}$  mile of the shoreline. The regular period on July 18 was fished as scheduled with a harvest of approximately 500,000 sockeye salmon from Central District drift and Upper Subdistrict set gillnet fishermen. On July 19, nearly 95,000 sockeye salmon escaped the Kenai River, bringing the yearly total to 475,000. The Kasilof River had nearly attained its minimum escapement goal of 150,000. Thus, a 16-hour emergency announcement was issued for Saturday, July 20 for drift gillnetting in the Kenai & Kasilof sections and set gillnetting in the entire Upper Subdistrict.

For the regular period on Monday, July 22, the drift fleet was restricted to fishing south of the latitude of Collier's dock and Northern District setnetters were limited to fishing no more than two nets per permit, which was a new option in the management plans. These restrictions were put in place in order to reduce the exploitation of Susitna River sockeye salmon, as the Yentna River sonar estimate of sockeye salmon escapement was lagging. After the harvest (~250,000) from this period was tallied and plugged into the OTF model, a formal estimate for the total run to UCI was announced. The "best-fit" estimator from the OTF program revealed a total run to UCI of more than 5.5 million fish (Shields 2003) and tracked the 1993 run, which was a one-day early run. However, within the next five best fits, there were two that tracked two-day early runs and projected a total run estimate of 4.7 to 5.1 million sockeye salmon, with the Kenai River component of the run at 2.9 to 3.2 million fish. Therefore, because the best fits from the OTF project all projected a Kenai River return greater than two million fish, the Kenai River sockeye salmon escapement goal was increased from 600,000–850,000 to 750,000–950,000. Additionally, as a result of the return having more than two million Kenai River sockeye salmon, the dipnet fishery at the mouth of the Kenai River was liberalized to 24-hours per day and the inriver sport fish bag limit was also liberalized from three fish per day to six fish per day, in compliance with the Upper Cook Inlet Personal Use Salmon Fishery Management Plan (5AAC 77.540) and the Kenai River Late-Run Sockeye Salmon Management Plan. Now that the Kenai River component of the return was in the two to four million range, management of the commercial fishery also changed. Under the new plan, the department could allow up to 36-hours of additional fishing time per week in the Upper Subdistrict

set gillnet fishery, but also must close the fishery for 48 consecutive hours per week.

Because of the mandatory 48-hours of consecutive closure per week to the Upper Subdistrict set gillnet fishery, managers were required to either close the fishery on July 23-24 or on July 26-27. The former option was chosen and implemented. For the regular period on Thursday, July 25, the drift fleet was restricted to the corridor and south of Kalgin Island. This area is allowed for in the Northern District Salmon Management Plan (5AAC 21.358) and was justified based on the strong sockeye salmon escapement levels in both the Kenai and Kasilof Rivers and also by the fact that Northern District sockeye salmon are felt to have transited this portion of Cook Inlet by July 25. By July 25, the Kenai River sockeye salmon escapement level had reached 650,000 fish, while the Kasilof River escapement was more than 170,000. Moreover, Cook Inlet coho salmon return indicators were all very positive, which further justified keeping the drift fleet south of Kalgin Island for this period. In response to the sockeye salmon escapement levels in both the Kenai and Kasilof Rivers, and realizing that the set gillnet fishery would have to be closed for 48 consecutive hours the following week, emergency orders were issued extending drift fishing to the Kenai and Kasilof corridors and set gillnetting in the Upper Subdistrict from the close of the regular period on Thursday, July 25. Specifically, from 7:00 p.m. on July 25, until 12:00 noon on Saturday, July 28 an additional 34 hours of fishing time was granted Upper Subdistrict set gillnetters while drift gillnetters fished an additional 26 hours in the Kenai and Kasilof corridors. Both groups had fished two additional hours before the regular period on July 25. This utilized the maximum number of hours (36) that set gillnets could fish in the Upper Subdistrict per the BOF changes in the management plan. On Sunday, July 28, which was the beginning of a new management week, set gillnetting in the Upper Subdistrict was open for 12 hours, while drift gillnetting was open for seven hours in the Kenai and Kasilof corridor.

For the regular period on Monday, July 29, the drift fleet was again restricted to the Kenai and Kasilof corridor and south of Kalgin Island, with the same justification as the previous Thursday fishing period. All setnetters in the Upper Subdistrict fished their regular period. This period was extended for both groups from 7:00 p.m. until 11:00 p.m., with drifters being confined to the corridor only for these four hours. Additional time was granted set gillnetters in the Upper Subdistrict on Tuesday, July 30 from 4:00 p.m. until 12:00 noon on Wednesday, July 31. Drifter gillnetters were allowed to fish in the Kenai and Kasilof corridor for 14 hours during this same time frame.

All gear types and areas fished their regular period on Thursday, August 1. No additional fishing time was granted until Sunday, August 4, in order to remain in compliance with two management plans. First, the Kenai River Late-Run Sockeye Salmon Management plan required 48 consecutive hours of closure per week for set gillnetting in the Upper Subdistrict, and second, the Kenai River

Coho Salmon Conservation Management Plan (5AAC 21.357) allowed for only one emergency order, not to exceed 24 hours in duration, to be issued in August for Upper Subdistrict set gillnets. Thus, an emergency order was issued for set gillnetting in the Upper Subdistrict from 7:00 a.m. on August 4 until 7:00 a.m. on August 5. Drift gillnetting was open in the Kenai and Kasilof corridor for 18 hours during this time period. The August 5 period was the last date fished by set gillnetters in the Upper Subdistrict, as their season closed on August 7. Drift gillnetting closed in the Central District on August 9, with the last regular period fished on August 8.

This was the fourth year of abundance based inriver goals for the Kenai River. It was also the fourth year that the goal range changed late in the season. The preseason forecast was for a return of 1.7 million sockeye salmon to the Kenai River, but was modified after the July 22 fishery to a return of between two and four million. The final inriver sonar estimate of Kenai River sockeye salmon of 957,924 exceeded the upper end of the escapement goal range of 750,000-950,000. The total sockeye salmon return to UCI in 2002 was 4.8 million, with 2.9 million being of Kenai River origin. The Kasilof River sonar estimate was approximately 226,682 fish, which was the first time the upper end of the BEG range for this system was not exceeded in the past six years. It should be noted again that this was the first year the Upper Subdistrict set gillnet fishery was prosecuted under the amended management plans that restricted the department's emergency order authority for June and July. The department utilized every emergency order hour that was granted to them under the management plans, yet still exceeded the upper end of the inriver goal range for the Kenai River and was near the top end of the BEG range for the Kasilof River.

The Northern District set gillnet fishery opened for regular periods starting on June 27. The July 11 cumulative sockeye salmon escapement estimate into the Yentna River was 16,234 fish, which was the highest cumulative count ever realized for that date since the project's inception. However, escapement counts slowed considerably during the next few days, and by July 22 it was apparent that harvest rates would need to be reduced in the Northern District in order to realize an appreciable increase in escapement rates. Drift gillnetting in the Central District had been restricted to the Kenai and Kasilof corridors on July 11 in order to pass sockeye salmon into the Northern District, and for the regular period on July 22, the drift fleet was held south of the latitude of Collier's dock, while Northern District setnetters had their legal gear reduced from three nets per permit to two. The latter action was a new option in the management plan provided by the BOF in order to reduce harvest rates without completely closing the fishery. Escapement levels were monitored closely for the next few days, and it became apparent that further restrictions would be needed in the Northern District in order to achieve the escapement goal. Therefore, the next two regular periods in the Northern District, July 25 and July 29, were both closed to commercial fishing. However, even with the two closures dates and one date with restricted gear, and restrictions to the Central District drift fleet, the minimum escapement goal

of 90,000 sockeye salmon in the Yentna River was not achieved. The final Yentna River sockeye salmon escapement estimate was 78,591. The harvest of Northern District sockeye salmon was also weak, totaling just over 33,000 fish. Beginning Thursday, August 1, the Northern District returned to fishing their regular Monday and Thursday periods. The rationale for allowing fishing, even though the Yentna River sockeye salmon escapement level was below the minimum goal, was based on the assumption that nearly all sockeye salmon that would eventually escape the Yentna River had already migrated through the Northern District by the end of July. This supposition is supported by the following information: (1) the total commercial harvest of sockeye salmon in the Northern district after July 31 was only 2,947 fish, (2) daily sockeye salmon escapement counts at the Yentna River had tailed off to less than a thousand fish per day by August 6, with only 277 on August 8, the last day of counting; travel time from the Northern District to the Yentna River sonar counter is very likely a few days to more than a week indicating that very few Yentna River sockeye salmon were still in the Northern District on August 1.

The commercial fishery targeting Fish Creek sockeye salmon stocks in Knik Arm was closed by the BOF prior to the 2001 season. This system has been sporadically enhanced since 1976, but in recent years has seen a significant downturn in production. However, the new SEG established in 2002 for Fish Creek of 20,000-70,000 was exceeded this year with an escapement of more than 90,000.

### ***Coho Salmon***

The 2002 coho salmon harvest of 246,281 (Table A.3.) was the highest commercial yield in the past six years, but significantly less than the average annual harvest during the 1980's (529,000) and 1990's (348,000). Commercial coho salmon harvests in UCI during the 1980's and early 1990's were much higher than the long term average due to good coho production, and also due to strong sockeye salmon returns to Upper Cook Inlet, which resulted in more fishing time in the Central District. However, as with pink and chum salmon, the 2002 coho salmon harvest is not a true indication of run strength due to regulatory changes that dictate how the fishery is prosecuted. Since 1996, BOF regulations have reduced fishing time allowed to the drift fleet in the Central District and eliminated additional fishing time directed at coho and sockeye salmon surpluses in the Northern District and Kalgin Island subdistricts. Both of these actions have resulted in marked reductions in the commercial coho salmon exploitation rate. Moreover, in 2002, the Northern District was closed for two periods and had gear restricted for one period in July in response to a weak sockeye salmon return and for three periods in August in compliance with the Northern District Salmon Management Plan. All of these fishing periods in the Northern District would have been expected to produce strong coho salmon harvests. The 2002 drift gillnet CPUE during district-wide fishing periods was quite strong for most of the season,

exceeding more than 100 coho salmon/boat on July 29 (100.1), August 1 (155), and August 8 (171). Furthermore, the OTF project cumulative CPUE for coho salmon was the second highest (798) since coho salmon data began being collected in 1988 (Shields 2003). In every system where coho salmon were enumerated, all goals were either met or exceeded. From almost every perspective, the coho salmon return to UCI in 2002 was very strong. The exvessel value of coho salmon to the commercial fishery was \$329,031 or 2.8 percent of the total exvessel value (Table A.7.).

### ***Pink Salmon***

The 2002 UCI harvest of 446,960 pink salmon was more than 300% greater than the 2000 catch, but still represents the third lowest even-year harvest since 1966 (Table A.4.). Again, it is not possible to accurately gauge run-strength of coho, pink, and chum salmon by comparing recent year's harvests to historical averages due to significant regulatory restrictions to time and area to commercial drift gillnetting. Pink salmon escapements are not monitored in Upper Cook Inlet to an appreciable degree; however, it appears that many river systems in 2002 received strong returns of pink salmon. For example, pink salmon are enumerated at a weir on the Deshka River in the Northern District and the 2002 escapement of 946,255 is considered very strong for this small stream. Other indicators of pink salmon abundance were also robust, with the OTF cumulative CPUE of 572 being the second highest on record (Shields 2003) and the drift gillnet CPUE exceeding more than 100 fish per boat on six different periods. It is also worth mentioning that the drift CPUE needs to be viewed in light of the fact that due to the very low price fishermen were paid for their pink salmon catch (\$0.00 to \$0.05 per pound), many drift gillnetters actively avoided harvesting these fish. The average price paid for pink salmon in 2002 was \$0.03 to \$0.05 per pound, resulting in an exvessel value for this species of \$20,312, or 0.3% of the total exvessel value (Table A.7.).

At the 2002 BOF meeting, drift gillnetters in the Central District of Upper Cook Inlet were provided an experimental pink salmon fishery that was to occur on even years only and in a limited area of the district (5AAC 21.356 Cook Inlet Pink Salmon Management Plan). Fishermen were required to register with the department prior to participating in the fishery and legal gear was limited to no more than 5" stretched mesh gillnet in 2002. The fishery was to be prosecuted from 7:00 a.m. until 7:00 p.m. on the first Monday, Wednesday, and Friday after the August 9 closure to the regular season. Participation in this year's fishery was very minimal, with the low grounds prices given as the reason for the negligible turnout. Only four boats took part in the fishery, and only on the first period. The total harvest included 116 pink, 4 sockeye, 10 coho, 18 chum, and no chinook salmon (Tables 4-8).

## ***Chum Salmon***

Since the flood of 1986, chum salmon production in much of south central Alaska has been poor, with recent harvests well below the long-term average annual harvest of 531,000 (Table A.5.). However, since 1995-1996, improvements in chum salmon returns have been observed, with the 2000-2002 runs being quite strong. In fact, the 2002 harvest of 237,949 chum salmon was the strongest since 1995 and the sixth highest in the past 14 years. Although chum salmon are enumerated in relatively few streams in UCI, escapement into the following watersheds in 2002 represented the highest counts ever observed: Little Susitna River, Willow Creek, and Wasilla Creek. In addition, the Yentna River apportioned chum salmon count was the highest estimate in the past eight years and the 2002 OTF cumulative chum salmon CPUE of 1,013 was more than 50% higher than any other CPUE since 1988, the first year chum salmon CPUE data was collected (Shields 2003). It does appear that the 2002 chum salmon return to UCI was one of the stronger returns in recent history, but like pink and coho salmon, harvest data doesn't always reflect this because of changes to the commercial fisheries already outlined in this report.

In recent years, the chum salmon return to Chinitna Bay has been essentially unexploited as the local set gillnet fishery has been inactive due to poor prices and no tendering service from any processor. Aerial and foot surveys of chum salmon escapement are conducted during August and September on two drainages in Chinitna Bay, specifically, Clearwater and Fitz Creeks. Peak counts from each year can provide indices to escapement trends. In 2002, the peak count in Clearwater Creek was approximately 8,900 chum salmon, while approximately 1,000 fish were observed in Fitz Creek. These counts are thought to represent minimum escapements however, as both streams had much lower water levels than normal, and were very turbid, precluding accurate counting.

Fishermen were paid an average price of \$.12 per pound for chum salmon (Table A.11.), producing an exvessel value of \$224,148 – which was just 1.9% of the overall exvessel value of the 2002 fishery (Table A.7.).

## ***Price, Average Weight and Participation***

In general, prices paid to fishermen for their catch in 2002 were again lower than previous years (Appendix A.11). In fact, the average price paid for sockeye salmon of \$0.60 per pound was the lowest average price since 1975. In most years, the price paid for fish rises by the end of the season, but did not occur this year due to various market factors, including competition from farmed fish and losses recorded by processors from previous year's operations. Chinook, coho, pink and chum salmon were sold for \$1.15, \$0.20, \$0.05 and \$0.12 per pound, respectively, which represent reductions for all species other than chinook salmon. It should be noted that these

averages are generated from inseason grounds prices and do not reflect any post-season adjustments.

As determined from fish ticket calculations, the average weight by species generally were similar to the long-term mean. Sockeye salmon, however, averaged 6.4 pounds per fish, which is the second highest average in the past 10 years. The drift gillnet average weight for sockeye salmon for all periods was 6.8 pounds, the highest average since 1987. Another indicator of slightly larger than average sockeye salmon was seen in the OTF catch of 2,580 sockeye salmon averaging 7.1 pounds per fish. The average weight for chinook, coho, pink and chum salmon were 22.3, 6.7, 3.8 and 7.9 pounds, respectively (Table 13, Appendix A.12).

The Commercial Fisheries Entry Commission issued 572 drift gillnet permits (69% to Alaska residents) and 743 set gillnet permits (83% to Alaska residents) for the Cook Inlet area in 2002 (Appendix A.13). A total of 18 firms purchased Upper Cook Inlet fishery products during 2002 (Table 14).

### ***Salmon Enhancement***

Salmon enhancement through hatchery stocking has been a part of UCI salmon production since the early 1970's. Presently, only a single commercially oriented hatchery remains operational in Upper Cook Inlet – the Trail Lakes facility located in the upper Kenai River drainage near Moose Pass. Trail Lakes hatchery was originally built and operated by the Department's FRED Division, but was subsequently leased to CIAA in 1990 as the state-operating budget declined. This hatchery has functioned to produce primarily sockeye salmon, with minor production of coho and chinook salmon. Many of the major projects operate without marking programs, making accurate estimates of contribution to common property harvests difficult. In general, hatchery-produced sockeye salmon have accounted for substantially less than 10 percent of the commercial catch.

### ***Stock Status and Outlook***

In general, UCI's salmon stocks remain in good condition, although several areas merit some discussion. The 2002 sockeye salmon harvest of 2.77 million was more than 500,000 fish greater than the preseason forecast. Moreover, the total sockeye salmon return of 4.71 million was more than a million fish above forecast. The Kenai River return of 2.90 million was approximately 69% above preseason expectations and is the primary system responsible for the return that exceeded preseason forecasts. The 2002 Kasilof, Crescent, and Susitna River sockeye salmon total returns were all less than forecast, while the Fish Creek return was better than expected.



A run of 3.7 million sockeye salmon was forecasted to return to Upper Cook Inlet in 2002, with a projected harvest (sport and commercial) of 2.2 million sockeye salmon. A sibling model was used to forecast the return of age 1.3 sockeye salmon (5 year-olds) to the Kenai River, as opposed to the fry model, because the fry that would produce the return for this age class in 2002 were the smallest ever-observed in Skilak Lake. However, the 2002 Kenai River age 1.3 sockeye salmon return of 1.84 million was much closer to the fry model prediction of more than two million than it was to the sibling model projection of 907,000. It is uncertain if the small fry survived at a rate better than expected, producing more smolt which in turn produced more adults, or if the smolt to adult marine survival was better than average, which would account for the stronger than expected adult return. In order to better understand the various mechanisms that affect the freshwater component of the sockeye salmon life cycle in the Kenai River, a smolt enumeration project is needed, as well as a continuation of the ongoing limnological studies of Skilak and Kenai Lakes.

After experiencing record-level returns through the mid to late '80's, the Crescent River sockeye salmon run declined dramatically and has remained depressed. In 1996, limnological studies were initiated to determine whether the decline in sockeye salmon production was related to changing conditions in Crescent Lake, the major nursery lake in this watershed. These studies revealed a low abundance of the primary food resource for juvenile sockeye salmon, specifically the cyclopoid copepod *Cyclops scutifer* (Edmundson and Edmundson 2002). As a result of these findings, the escapement goal for this system was reduced in 1998 from 50,000-100,000 to the current 25,000-50,000 range. After the 2000 season, and before the causes of the decline in *Cyclops* abundance could be more precisely defined, the limnological studies were terminated because of budgetary constraints. While not able to clearly identify the mechanisms leading to the decline in zooplankton production, the limnology studies did provide further insight. First, it is possible that a top-down grazing effect is occurring to the *Cyclops* population from sockeye salmon fry produced from escapements that exceeded goals in 1999-2002. It is also possible that that increased turbidity levels in the lake prior to 1996 resulted in a reduction in primary production associated with a lack of light penetration in the lake. Edmundson and Edmundson 2000 theorized the decline in sockeye salmon production is likely some combination of the two mechanisms. If possible, staff will continue to monitor rearing conditions in Crescent Lake and adjust spawning escapement goals if conditions change.

Recent returns of sockeye salmon to Fish Creek, which drains Big Lake and flows into Knik Arm, have been relatively poor, particularly since 1998. The average annual total sockeye salmon return to Big Lake from 1980 to 1997 was 212,414; however, from 1998-2001 the average annual return fell to 52,192 (Tobias and Willette 2003). Moreover, from 1998-2001 the Fish Creek sockeye salmon escapement goal of 50,000 was not achieved. But, in 2002, the total sockeye salmon return to Fish Creek was more than 134,000 fish, exceeding the preseason forecast by more than 41%. At the 2002 BOF meeting, a new sockeye salmon SEG of 20,000-70,000 had

been established at Fish Creek, and this year's final escapement of 90,483 well exceeded the top end of that goal.

A technical review assessing Big Lake sockeye salmon production was completed prior to the 2002 BOF meeting (Litchfield and Willette 2002). This report proposed two likely causes for the decline in sockeye salmon production: (1) degradation of spawning habitat as a result of questionable hatchery practices and (2) placement of a coffer dam at the outlet of the lake which prevented fry from being able to recruit into the lake as well as causing a productive spawning area to be filled in with silt and mud. At the 2002 BOF meeting, Fish Creek sockeye salmon were found to be a stock of yield concern and the department proposed additional studies to more clearly define the causative agents affecting sockeye salmon production in this system. The long-term outlook for Big Lake sockeye salmon is unknown, but due to the reduced fry stocking numbers for the next couple of years, the short term outlook is for much smaller returns. Since 1976 this system has been stocked with fry raised in Big Lake, Eklutna, or Trail Lakes hatcheries. The stocking rate has been as high as 15 million fry in 1985 and as low as 200,000 fry in 1998; however, there were no fry stocked in 2000 due to a disease outbreak in the hatchery. Cook Inlet Aquaculture Association enumerated the sockeye salmon smolt emigration from Big Lake in the spring of 2002 (Dodson 2003) and counted only 49,000 smolt. Based upon a 15% smolt to adult average survival rate, less than 7,500 adults could be expected to return from this smolt production.

Pink salmon returns in UCI are even-year dominant. As was the case in 2000, this year's pink salmon run was characterized as strong, as measured by drift fishermen reports, the OTF project, the Doshka weir enumeration, and by sport fishing success throughout Cook Inlet. The commercial pink salmon harvest in 2002 of 447,000 was much stronger than the 2000 harvest of 146,000 fish, but still well below what would be expected, given the reports of strong pink salmon run strength. The primary reasons for the less than average harvest are a result of management actions restricting the drift fleet to the corridor for all non-regular fishing periods as well as the low price paid for pink salmon, which caused fishermen to actively avoid harvesting this stock as much as possible. Although pink salmon escapements are not monitored in most Upper Cook Inlet streams, it appears that returns to most watersheds were exceptionally strong. Thus, the returns in 1998, 2000, and 2002 have largely reversed the trend seen since the flood in 1986. Barring unforeseen circumstances, the pink salmon return for 2004 should again be quite robust.

Chum salmon production has been relatively poor in recent years, in part due to the after-effects of the 1986 fall flooding of the Susitna Basin, but in all probability also due to poor general environmental factors. Chum salmon stocks throughout southcentral Alaska have mirrored Susitna River chum salmon production, both realizing marked reductions. Fortunately, since 1995, a steady improvement in chum salmon production has been observed in many areas of South Central Alaska,

including UCI. Indications from the OTF project, the commercial fishery, and the few escapement programs where chum salmon are enumerated indicated the 2002 return was much improved from returns during the 1990's. While the Department lacks quantitative escapement information, chum salmon escapements to streams throughout UCI have undoubtedly been augmented by management actions or regulatory changes aimed principally at other species. These actions include significant reductions in the offshore drift gillnet and Northern District set gillnet fisheries to conserve Yentna River sockeye salmon; the adoption of a Northern District Coho Salmon Management Plan, which further limits these two fisheries to allocate coho salmon for other users; the lack of a directed chum salmon fishery in Chinitna Bay due to market conditions; and finally, harvest avoidance, as much as possible, by the drift fishery as a result of the low value of chum salmon in recent years. These actions have all combined to significantly reduce chum salmon commercial exploitation rates in Cook Inlet.

UCI's coho salmon stocks generally produced very strong returns throughout most of the 1980's and early 1990's. However, coho salmon returns in 1997 and 1999 were viewed as mediocre to poor, prompting a special BOF meeting in 1999, which resulted in coho salmon conservation restrictions to sport and commercial fishermen in much of UCI, beginning with the 2000 season. Ironically, the 2000 return appeared to be much improved from recent years, with the 2001 return being even stronger yet. Not surprisingly, the strength of the 2002 coho salmon return generated a significant amount of interest, and as can be seen in the table below, in systems where coho salmon are enumerated, the 2002 return was exceptional. As just reported, the parent-year escapements (1997-1999) for the 2001-2003 UCI coho salmon returns resulted in BOF regulatory restrictions to sport and commercial harvesters, as it was unclear if these escapement levels would produce sustained returns of this stock. The 2001-2002 coho salmon returns can now be assessed in relation to their brood-year escapement and it appears the production realized from 1997-1998 brood years was excellent. The 2003 return will originate primarily from the 1999 brood year, which had escapement levels that caused the most concern of all. Thus, the 2003 coho salmon return should provide the department with extremely important information regarding coho salmon production

Coho Salmon Escapement Counts						
Year	Cottonwood Creek	Fish Creek	Little Su. River	Wasilla Creek	Deep Creek	OTF CPUE
1996		682	15,803			534
1997	936	2,549	9,894	437	2,017	362
1998	2,114	5,552	15,159	3,622	1,541	403
1999	458	1,716	2,833	1,463	2,267	294
2000	2,062	5,989	15,522	6,172	3,408	766
2001	3,514	9,944	30,284	6,507	3,747	838
2002	3,957	14,651	47,938	13,195	6,132	798

from small escapement levels, and will then be followed by returns in 2004-2006, which will provide production data from larger returns.

Early-run Kenai River coho salmon runs are enumerated primarily from mark-recapture studies in the Kenai River (Yanusz, et al 2002), as well as monitoring commercial fisheries harvests for coded wire tag recoveries unique to the Kenai River. Smolt enumeration studies are also conducted in the Moose River, a Kenai River tributary that has been shown to be a very important rearing environment for juvenile coho salmon. At the 2002 BOF meeting, conservation measures were implemented to reduce sport and commercial exploitation of early-run Kenai River coho salmon as a result of diminishing escapement levels in the late 1990's. Since that time, coho salmon smolt emigration data from the Moose River and adult return population estimates to the Kenai River have revealed that coho salmon production in the Kenai River did not suffer from the smaller escapements. Continued monitoring of smolt and adult production will provide valuable information about Kenai River coho salmon returns from various levels of escapements, which will allow the department to more precisely set escapement goals that provide for sustained yields.

The commercial fisheries division of ADF&G conducted a marine tagging study in 2001 & 2002. Two important objectives of this study were to (1) estimate the total number of coho, pink, and chum salmon entering UCI, and (2) apportion out coho salmon escapement to the major watersheds of UCI by locating radio-tagged fish in streams throughout the inlet. The results of this study are still being compiled and should be available in May or June, 2003. But, a preliminary point estimate of the number of coho salmon that entered UCI in 2002 is approximately 2.0 million (Mark Willette pers. comm.). This estimate is derived from the overlap in the range of population estimates computed from the mark-recapture studies using recoveries of Passive Integrated Transponder (PIT) tagged fish and telemetry tracking of radio-tagged fish. The total coho salmon population estimate from the two tagging methods varies from 1.23 million (radio estimate - low end) to 2.87 million (PIT estimate - high end). Based upon the lower and upper ranges of the population estimates, the 2002 commercial fisheries exploitation rate on coho salmon is estimated to be between 9% and 20% of the return. Assuming the most accurate population estimate for this species lies near the point of overlap between the PIT and radio tag estimates, the most probable commercial exploitation rate on coho salmon in UCI in 2002 is approximately 11%. It should be noted though that the commercial fisheries harvest rate of early-run Kenai River coho salmon is significantly lower than the 11% estimate, as this stock was still entering UCI when the tagging studies terminated on August 7.

After experiencing a significant downturn in the early to mid 1990s, Northern District chinook salmon stocks continue to trend significantly upward and no generalized conservation issues are currently applicable. Late-run Kenai River chinook salmon returns have been relatively stable and escapement objectives have been consistently achieved or exceeded.

## COMMERCIAL HERRING FISHERY

In 1998 the department reopened the Eastern Subdistrict of the Northern District and the Upper Subdistrict of the Central District to commercial herring fishing from April 15 to May 20 by emergency order. In 1999, the Central District Herring Recovery Management Plan became effective, limiting herring fishing in Upper Cook Inlet to the waters of the Upper, Western, and Chinitna Bay Subdistricts. In 2002, the herring fishery in the Upper Subdistrict was open for two 30-hour periods per week from April 20 to May 31. The May 31 closure date represents a modification made to the management plan at the 2001 BOF meeting.

In 2001, samples of herring were collected in Chinitna and Tuxedni Bays. Age, sex, and size distribution of the samples revealed that the years of fishing closure in these areas had resulted in an increase of younger fish being recruited into the population. As a result of these analyses, and in accordance with the Central District Herring Recovery Management Plan, the commercial fishery was reopened in Chinitna Bay and in the Western Subdistrict in 2002. The management plan allows for a very conservative harvest quota, not to exceed 40 and 50 tons, respectively. However, there was very minimal participation in either fishery in 2002 with a total of 1.9 tons of herring harvested in Chinitna Bay, while no one fished in Tuxedni Bay (Table A.8). These fisheries will remain open for the 2003 season. Samples were collected for age and size analysis and the harvest was comprised of four to nine year old fish (Table 16).

The 2002 herring fishery in the Upper Subdistrict resulted in a harvest slightly above average, which was expected with the extension of the fishing season through the end of May. A total of 16 different permits holders harvested approximately 16.2 tons of herring (Table A.8.). The first harvests were reported on May 6 and the last date fished was May 31. Age composition of the herring samples taken during the fishery revealed that approximately 90% of the harvest was comprised of 5 to 9 year old fish (Table 16). Department personnel observed many smaller herring, likely those less than 5 year olds going through the nets uncaught, providing an anecdotal indication of recruitment in the future. There was no incidental harvest of chinook salmon, sockeye salmon, or Dolly Varden char (*Salvelinus malma*) observed.

Many reports from commercial herring fishermen and other members of the public were received commenting on the number of hooligan (eulachon) *Thaleichthys pacificus* in Cook Inlet. From these reports and other observations, the abundance of hooligan returning to Cook Inlet in 2002 was very strong.

## COMMERCIAL RAZOR CLAM FISHERY

Historically the Cook Inlet Razor clam fishery on the west side of Cook Inlet has been confined to the area between Crescent River and Redoubt Point. All clams harvested in this area are directed by regulation to be sold for human consumption, except for the small percentage (less than 10%) of broken clams, which may be sold for bait. Razor clams are present throughout this area, with especially dense concentrations in the Polly Creek and Crescent River areas. Beginning in 1993, the Department of Environmental Conservation certified additional area for human consumption. The additional area is located north of the existing certified beach at Polly Creek north to Redoubt Creek. In 1994 this certification was extended further north to Harriet Point. In the remainder of the Upper Cook Inlet Management Area, there are no restrictions on the amount of clams that can be sold for bait. Currently there is no directed effort to harvest razor clams for the bait market. The minimum legal size for razor clams is four and one-half inches (114mm) in shell length.

The season's harvest, taken primarily from the Polly Creek/Crescent River area, was 338,940 pounds (Appendix A.9). A total of 23 diggers participated during the season, reporting harvest from 65 different days, from the time period of May 23 to August 25. Diggers were paid an average of \$.50 per pound for their harvest, resulting in an exvessel value of this fishery of \$169,000. Less than 5% of the clams are processed as bait due to shell breakage, the remainder is sold as food as required. The summer's tide schedule can be found in Table 17.

## **SUBSISTENCE**

There is a long history of Alaskans harvesting fish and game for their personal consumptive needs under sport, subsistence, and commercial fishing regulations in the Cook Inlet area (Braund 1982). Since 1978, when the State of Alaska passed its first subsistence statute (AS 16.05.258), many changes have occurred in the regulations governing the harvest of fish and game for personal consumption in the Cook Inlet Area. Beginning in 1981, a new category of fisheries was established. Personal use fishing was created to provide for the personal consumptive needs of state residents not able to meet their needs under other fisheries. Since their creation, numerous changes have occurred in the personal use or subsistence fisheries in Cook Inlet, resulting from challenges in the State of Alaska Court System, The Alaska State Legislature, or the Board of Fisheries process. The only personal use or subsistence fishery that has occurred consistently in Cook Inlet during this period is the Tyonek Subsistence fishery. A complete review of the various fisheries and changes that have resulted since 1978 is reported in Brannian and Fox (1996).

### ***Tyonek Subsistence Salmon Fishery***

The present subsistence fishery in the Tyonek Subdistrict was created by an Anchorage Superior Court order in May 1980. In March 1981, the Board of Fisheries adopted permanent regulations for this fishery. Originally open only to those individuals living in the village of Tyonek, recent court decisions allow any Alaska resident to participate, although very few non-villagers seek permits. Fishing is allowed only in the Tyonek Subdistrict of the Northern District. A limit of one permit per household can be issued and each permit holder is allowed a single ten-fathom gillnet, having a mesh size no greater than six inches. Fishing is allowed from 4:00 a.m. to 8:00 p.m. each Tuesday, Thursday, and Friday from May 15 to June 15, or until 4,200 chinook salmon are taken. Fishing is again allowed from 6:00 a.m. to 6:00 p.m. each Saturday after June 15, although the opening is delayed until July 1, if 4,200 chinook salmon were taken before June 16. The permit allows 25 salmon per permit holder and 10 salmon for each additional member. Chinook salmon harvests have ranged from 639 in 1997 to 2,665 in 1983 (Appendix A.15).

## **PERSONAL USE SALMON FISHERY**

Under the Upper Cook Inlet Personal Use Salmon Fishery Management Plan (5 AAC 77.540), personal use fishing is allowed in limited areas in Cook Inlet. The management plan received substantial changes at the BOF meeting in January of 1996. In 1995, the personal use fishery allowed gillnets in most areas of Cook Inlet normally open to commercial set gillnet fishing. However, for the 1996 season, most of this area was closed with dip net fisheries expanded to allow for approximately the same level of harvest that had occurred with gillnets in 1995. Currently, personal use fishing using gillnets is open near the Kasilof River in the waters of UCI normally closed to commercial set gillnet fishing. This area encompasses approximately one mile on either side of the Kasilof River, extending out from shore for one mile. In addition, dip net fishing is allowed at the terminus of the Kenai and Kasilof Rivers. The personal use management plan was again amended at the 2002 BOF meeting, modifying how the dip net fishery at Fish Creek in Knik Arm is to be managed. This fishery was continued in regulation, but opens only if the upper end of the escapement goal of 70,000 is projected to be exceeded. Other modifications to the plan included expanding the days and hours that the Kasilof River gillnet fishery is open. The fishery now opens on June 15 and takes place from 6:00 a.m. until 11:00 p.m. daily. Instead of being managed for a harvest goal of 10,000-20,000 fish, the fishery remains open until 11:00 p.m. on June 24, regardless of how many fish are harvested. The amended management plan also changed how the Kenai River dip net fishery is prosecuted. This fishery is open from July 10 through July 31, seven days per week, but only from 6:00 a.m. to 11:00 p.m. daily. However, if the department determines that the abundance of Kenai River late-run sockeye salmon is greater than two million fish, this fishery may be extended, by emergency order, to 24-hours per day.

A permit issued by the Department, along with a valid resident sport fishing license, or an exemption from licensing under AS 16.05.400, is required to participate in the personal use fisheries. The annual bag and possession limits are 25 salmon per head of household, with an additional 10 salmon for each household member. However, in the Kasilof River dip net fishery, chinook salmon may not be retained and must be released immediately to the water unharmed. In the Kenai River dip net fishery, one chinook salmon may be retained per household. There are no chinook salmon limitations in the Kasilof River gillnet personal use fishery. Legal gear under the management plan are set gillnets and dip nets. A set gillnet cannot exceed 10 fathoms (60 feet) in length, or 45 meshes in depth. Mesh size must be greater than four inches, but may not exceed six inches. Gillnets must be set at least 100 feet apart at all times. A legal dip net has been defined in regulation (5 AAC 39.105) as a bag-shaped net supported on all sides by a rigid frame. The maximum straight-line distance between any two points on the net frame, as measured through the net opening, may not exceed five feet. The depth of the bag must be at least one-half of the greatest straight-line distance, as measured through the net opening. No



portion of the bag may be constructed of webbing that exceeds a stretched measurement of 4.5 inches; the frame must be attached to a single rigid handle and be operated by hand.

### ***2002 Personal Use Fishery***

The personal use fishery using gillnets at the mouth of the Kasilof River opened on June 15 and closed, as stipulated by the amended management plan, on June 24. The total salmon harvest in this fishery was approximately 18,227 fish (Table 15). Of this total, 17,980 were sockeye salmon. Typically, harvest rates are low during the first few days of the fishery, peaking after June 20. However, this year many households harvested their entire limit within the first few hours of the first day.

The Kasilof River dip net fishery was in effect from July 10 to August 5. The total harvest from this fishery was more than 50,000 fish with the majority (46,769) being sockeye salmon. This was the strongest harvest since the fishery began.

The dip net fishery in the Kenai River opened on July 10 and closed, as scheduled, at midnight on July 31. In compliance with the management plan, the fishery was open from 6:00 a.m. to 11:00 p.m. daily until July 23, when an emergency order was announced expanding hours to 24-hours per day. This was in response to the department's declaration that the Kenai River sockeye salmon return was greater than two million fish. Harvest rates in the Kenai River dip net fishery also yielded the strongest sockeye salmon catch on record, with a total of more than 188,000 fish, of which approximately 180,000 were sockeye salmon (Table 15). More than 550 chum salmon were also reported as being harvested, but it is likely many of these were sockeye salmon that were misidentified.

The Fish Creek personal use dip net fishery was not opened in 2002.

The total harvest of salmon from the personal use fisheries in the Central District of UCI was as follows: chinook salmon (1,070); sockeye salmon (259,623); coho salmon (3,271); pink salmon (8,470); and chum salmon (757); for a grand total of 273,191 (Table 15). Approximately 17,500 personal use permits were issued in 2002; however, nearly 3,300 permit holders did not return their permits. Nonetheless, harvest numbers are expanded for all personal use permits that are not returned.

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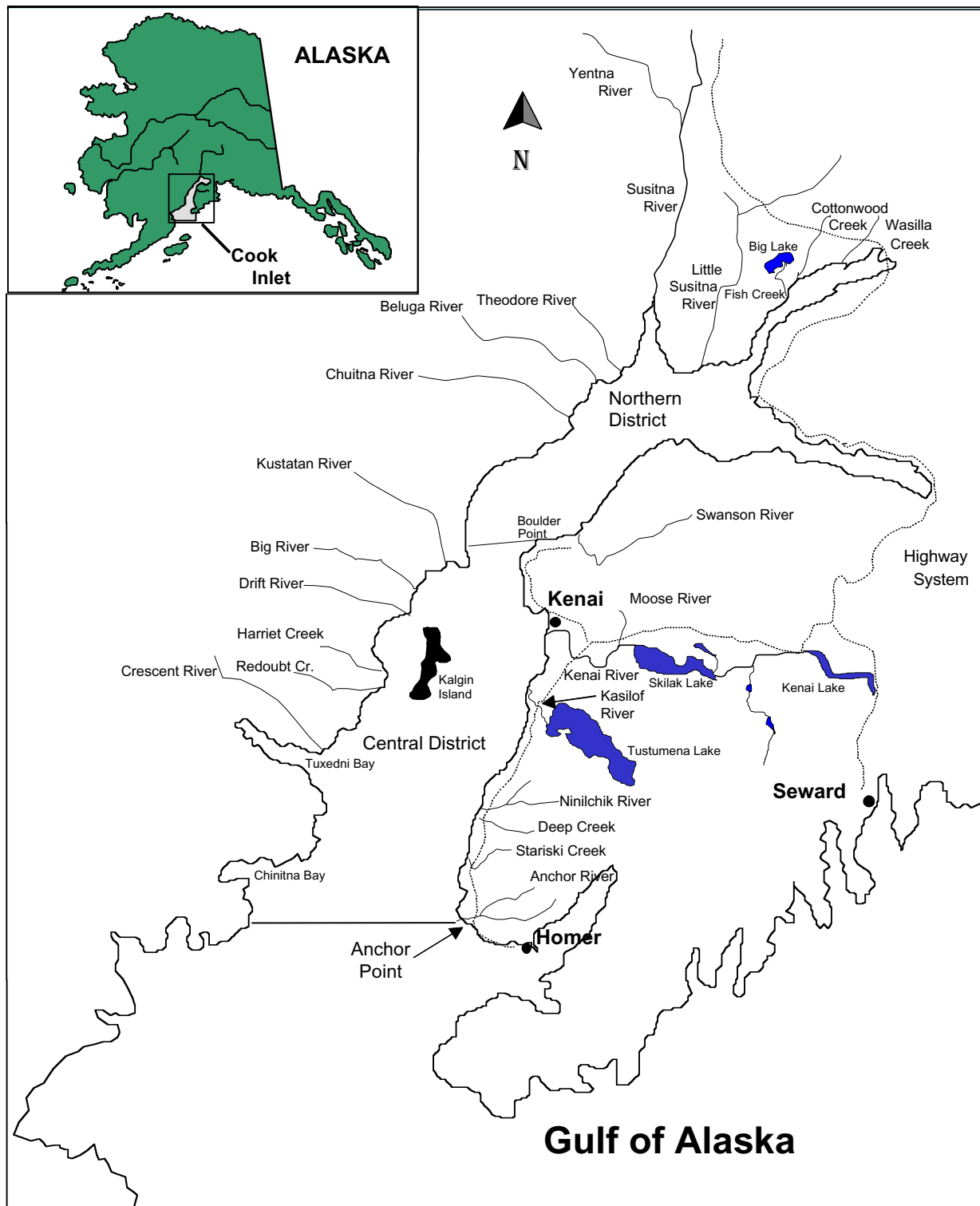


Figure 1. Major tributaries of the Cook Inlet Basin.

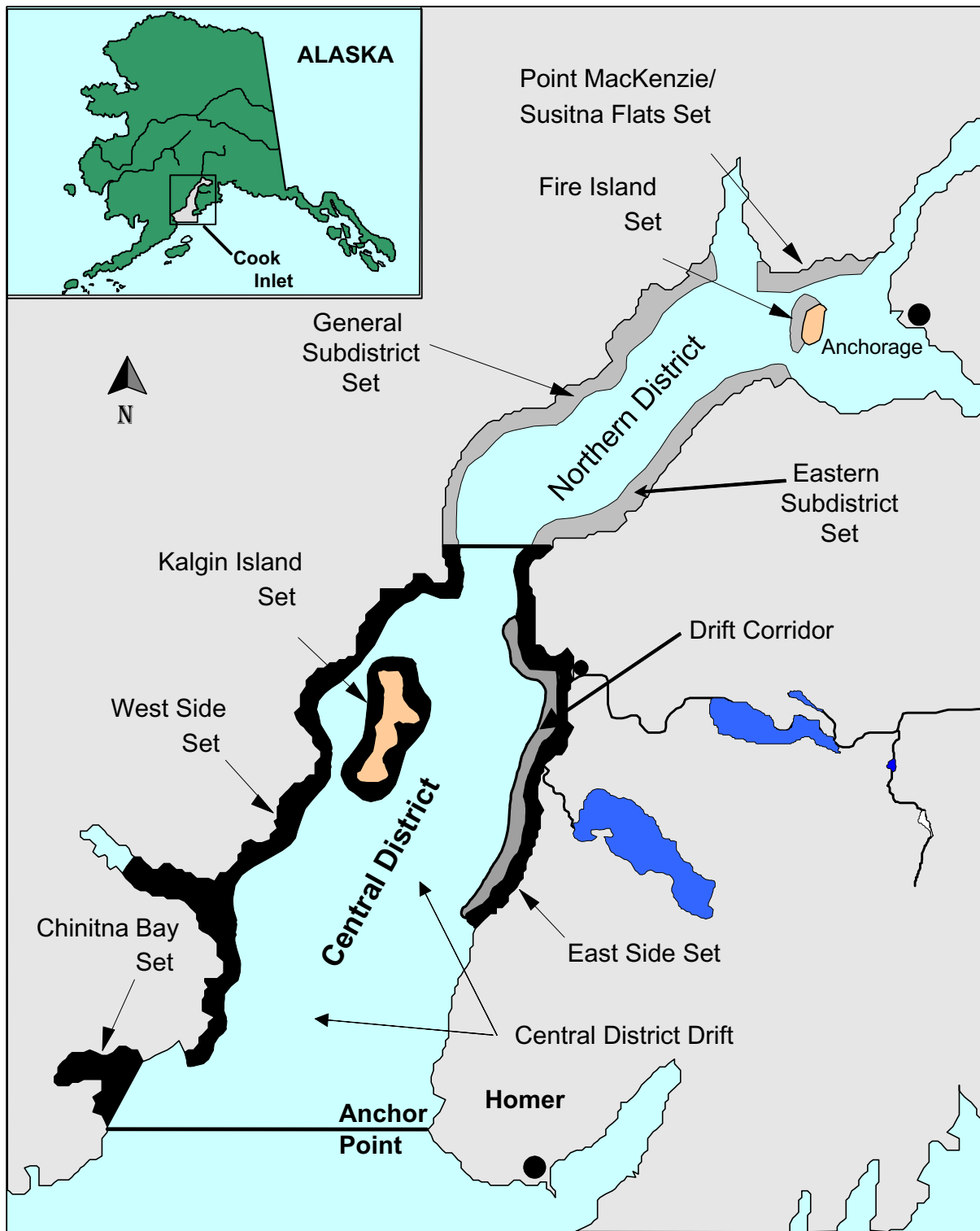


Figure 2. Upper Cook Inlet commercial fisheries subdistrict fishing boundaries.

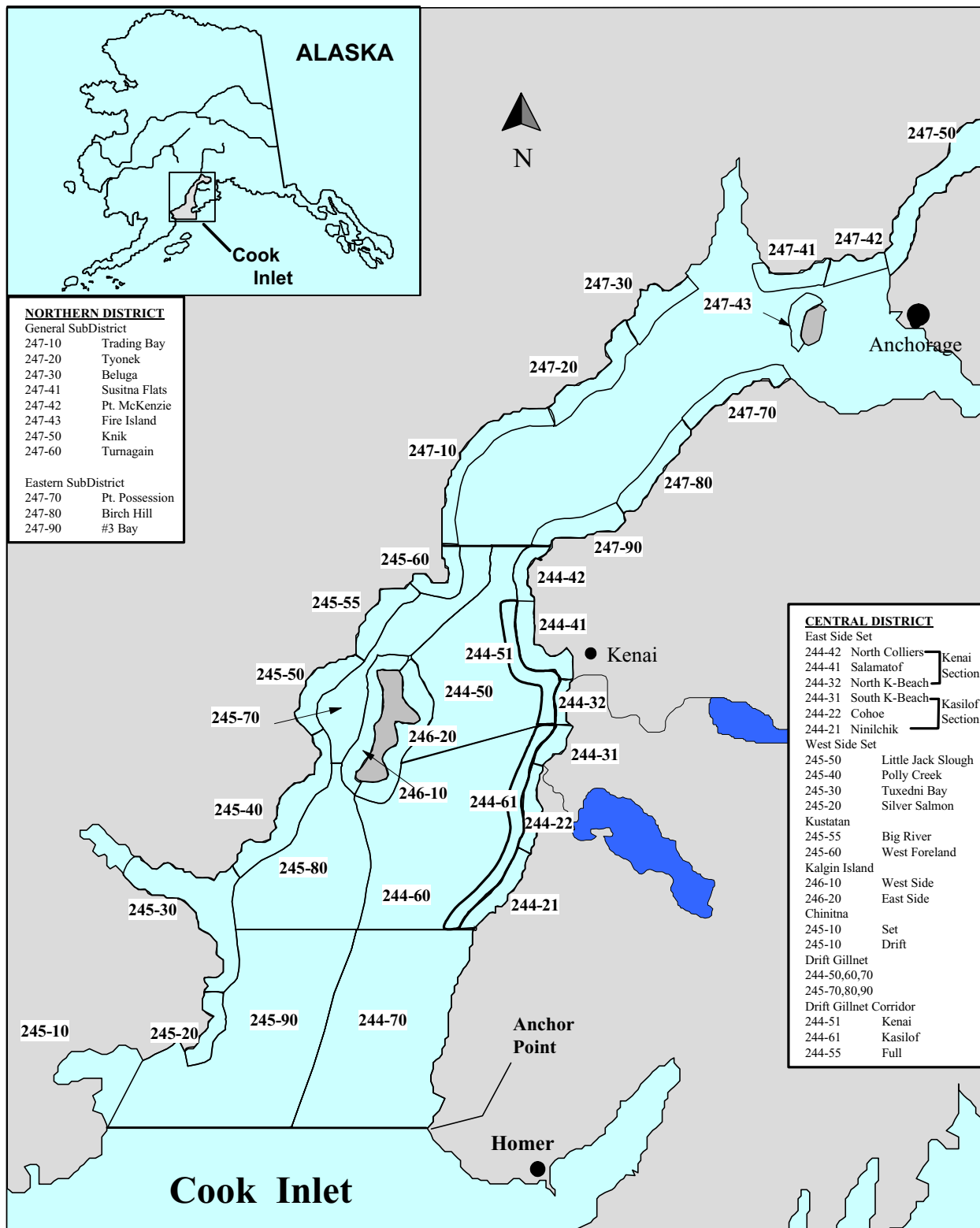


Figure 3. Upper Cook Inlet commercial fisheries statistical areas.

Table 1. Offshore sockeye salmon test fishing results, F/V Corrina Kay, 2002.

Date	Number of Stations	Fishing Time (min)	Fishing				Mean Length (mm)	Water Temp (c)	Air Temp (c)	Salinity (ppm)	Beginning Wind		Ending Wind	
			Catch	Cum Catch	Index	Cum Index					Vel	Dir	Vel	Dir
1-Jul	6	239.0	113	113	74.9	74.9	574	9.2	11.3	30.5	35	SE	25	S
2-Jul	6	221.0	34	147	27.0	101.9	561	9.3	12.0	30.4	20	S	22	SE
3-Jul	6	237.0	126	273	78.9	180.9	580	9.6	11.3	30.4	22	SE	35	SE
4-Jul	6	217.0	43	316	34.0	214.9	581	9.7	12.7	30.2	10	SW	8	SW
5-Jul	6	230.5	46	362	35.9	250.7	573	10.2	12.1	29.9	21	S	35	SE
6-Jul	6	230.5	89	451	66.2	317.0	565	9.8	11.3	30.2	30	SW	20	SW
7-Jul	6	221.5	96	547	73.5	390.4	562	10.4	11.2	29.4	10	W	2	SW
8-Jul	6	209.5	6	553	5.1	395.5	572	9.9	12.7	30.2	8	SW	10	SW
9-Jul	6	250.0	338	891	209.1	604.6	581	9.8	12.8	30.6	4	S	3	SW
10-Jul	6	220.0	104	995	78.9	683.5	546	9.7	12.3	30.7	0	-	7	N
11-Jul	6	252.5	243	1,238	158.4	841.9	577	9.9	14.2	30.7	20	SE	20	SE
12-Jul	6	248.5	126	1,364	82.1	924.0	585	9.8	12.0	30.8	25	SE	15	SW
13-Jul	6	233.0	305	1,669	183.1	1,107.1	580	9.9	12.0	30.5	0	-	5	W
14-Jul	6	217.0	9	1,678	7.3	1,114.4	568	9.4	11.7	31.2	0	-	0	-
15-Jul	6	218.5	39	1,717	30.8	1,145.2	580	10.1	12.8	30.6	5	NW	8	SW
16-Jul	6	248.0	166	1,883	104.3	1,249.5	584	9.8	11.7	30.8	15	SE	5	SE
17-Jul	6	236.5	94	1,977	63.0	1,312.5	575	10.1	15.3	30.7	10	SE	2	S
18-Jul	6	241.0	47	2,024	33.5	1,346.1	565	10.1	11.7	30.6	20	SW	20	SW
19-Jul	6	241.5	100	2,124	65.4	1,411.4	568	10.3	13.0	30.5	5	NW	0	-
20-Jul	6	217.0	69	2,193	49.3	1,460.8	559	10.6	11.8	30.4	0	-	5	NW
21-Jul	6	235.5	75	2,268	55.1	1,515.9	542	10.1	12.8	30.9	15	NW	15	NW
22-Jul	6	219.0	11	2,279	8.9	1,524.7	573	10.6	11.9	30.2	5	NW	20	N
23-Jul	6	241.5	90	2,369	63.3	1,588.1	557	10.1	13.3	30.7	20	NW	20	NW
24-Jul	6	223.0	15	2,384	11.5	1,599.5	565	10.3	12.5	30.3	0	-	10	SE
25-Jul	1	46.5	30	2,414	19.4	1,618.9	575	10.6	12.0	29.9	32	SE	32	SE
26-Jul	6	206.5	42	2,456	31.5	1,650.4	562	10.2	10.3	30.5	5	N	20	SE
27-Jul	6	268.5	68	2,524	41.1	1,691.5	557	11.2	14.9	29.8	15	SE	15	SW
28-Jul	6	221.0	26	2,550	20.8	1,712.3	536	10.2	11.9	30.6	0	-	0	-
29-Jul	6	220.5	11	2,561	9.1	1,721.4	562	10.7	15.5	30.1	10	SE	8	S
30-Jul	6	223.0	18	2,579	14.9	1,736.3	554	10.5	15.6	30.4	10	SE	12	NW

Table 2. Upper Cook Inlet sockeye salmon enumeration by river and date, 2002.

Date	Kenai River		Kasilof River		Crescent River		Yentna River		Fish Creek	
	daily	cum	daily	cum	daily	cum	daily	cum	daily	cum
14-Jun			2,918	2,918						
15-Jun			3,170	6,088						
16-Jun			2,669	8,757						
17-Jun			2,694	11,451						
18-Jun			3,761	15,212						
19-Jun			6,435	21,647						
20-Jun			5,249	26,896						
21-Jun			4,454	31,350						
22-Jun			4,170	35,520						
23-Jun			3,887	39,407						
24-Jun			2,429	41,836						
25-Jun			2,113	43,949						
26-Jun			4,046	47,995						
27-Jun			4,194	52,189	990	990				
28-Jun			686	52,875	3,532	4,522				
29-Jun			456	53,331	2,510	7,032				
30-Jun			927	54,258	2,310	9,342				
1-Jul	4,943	4,943	5,991	60,249	2,345	11,687				
2-Jul	7,845	12,788	3,169	63,418	2,458	14,145				
3-Jul	4,682	17,470	7,558	70,976	2,904	17,049				
4-Jul	8,801	26,271	7,519	78,495	2,452	19,501				
5-Jul	27,258	53,529	1,816	80,311	2,562	22,063				
6-Jul	26,347	79,876	5,521	85,832	2,931	24,994				
7-Jul	53,055	132,931	10,934	96,766	2,632	27,626	2,270	2,270		
8-Jul	36,330	169,261	9,619	106,385	1,574	29,200	5,704	7,974	65	65
9-Jul	23,578	192,839	4,084	110,469	971	30,171	4,204	12,178	95	160
10-Jul	18,960	211,799	5,999	116,468	532	30,703	2,524	14,702	0	160
11-Jul	11,989	223,788	2,543	119,011	520	31,223	1,532	16,234	140	300
12-Jul	6,976	230,764	1,891	120,902	1,504	32,727	1,532	17,766	49	349
13-Jul	7,803	238,567	2,978	123,880	2,596	35,323	744	18,510	0	349
14-Jul	10,252	248,819	1,580	125,460	3,251	38,574	1,255	19,765	11	360
15-Jul	24,186	273,005	3,713	129,173	888	39,462	1,561	21,326	806	1,166
16-Jul	36,522	309,527	2,771	131,944	1,225	40,687	4,480	25,806	2,887	4,053
17-Jul	27,295	336,822	3,328	135,272	1,599	42,286	9,278	35,084	58	4,111
18-Jul	44,323	381,145	5,402	140,674	559	42,845	6,997	42,081	87	4,198
19-Jul	94,761	475,906	4,953	145,627	1,586	44,431	2,719	44,800	3,078	7,276
20-Jul	62,051	537,957	8,143	153,770	1,562	45,993	4,555	49,355	2,725	10,001
21-Jul	33,021	570,978	2,038	155,808	3,249	49,242	4,380	53,735	2,147	12,148
22-Jul	23,683	594,661	4,686	160,494	1,574	50,816	3,916	57,651	1,789	13,937
23-Jul	26,499	621,160	3,304	163,798	1,250	52,066	1,596	59,247	1,422	15,359
24-Jul	26,279	647,439	6,675	170,473	427	52,493	2,263	61,510	7,566	22,925
25-Jul	24,834	672,273	8,935	179,408	3,320	55,813	1,945	63,455	12,252	35,177
26-Jul	31,683	703,956	4,708	184,116	2,534	58,347	985	64,440	8,922	44,099
27-Jul	11,768	715,724	2,412	186,528	2,268	60,615	1,169	65,609	5,985	50,084
28-Jul	10,460	726,184	2,640	189,168	1,410	62,025	1,606	67,215	5,559	55,643
29-Jul	12,583	738,767	3,860	193,028	808	62,833	1,244	68,459	5,366	61,009
30-Jul	11,122	749,889	2,392	195,420			1,537	69,996	6,190	67,199
31-Jul	13,878	763,767	2,489	197,909			1,200	71,196	4,488	71,687
1-Aug	12,417	776,184	3,265	201,174			914	72,110	4,799	76,486
2-Aug	13,770	789,954	4,666	205,840			1,038	73,148	2,009	78,495
3-Aug	15,363	805,317	3,914	209,754			1,307	74,455	2,694	81,189
4-Aug	16,473	821,790	3,273	213,027			1,285	75,740	3,387	84,576
5-Aug	17,281	839,071	2,116	215,143			1,193	76,933	1,032	85,608
6-Aug	14,301	853,372	2,076	217,219			860	77,793	1,004	86,612
7-Aug	15,157	868,529	2,378	219,597			521	78,314	828	87,440
8-Aug	19,177	887,706	2,002	221,599			277	78,591	596	88,036
9-Aug	24,016	911,722	2,102	223,701					767	88,803
10-Aug	18,582	930,304	1,572	225,273					127	88,930
11-Aug	12,407	942,711	1,409	226,682					361	89,291
12-Aug	5,810	948,521							305	89,596
13-Aug	5,337	953,858							166	89,762
14-Aug	4,066	957,924							116	89,878
15-Aug									48	89,770*

\* Fish Creek weir was run through 18-Sep with a final sockeye salmon escapement of 90,483



Table 3. Commercial chinook salmon catch by area and date, Upper Cook Inlet, 2002.

Date	Drift		East Side Sernet												West Side Subdistricts						Northern District						
			Salamatof / E.Forelands			N & S K. Beach			Cohoe/Ninlichik			Total			Western		Kustatan		Kalgin				Chinitna Bay		West Side		East Side
	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	
27-May																											
3-Jun																											
5-Jun																											
7-Jun																											
10-Jun																											
12-Jun																											
14-Jun																											
17-Jun																											
20-Jun																											
24-Jun																											
27-Jun	9	9																									
28-Jun																											
29-Jun	9																										
1-Jul	36	45																									
2-Jul	45																										
3-Jul	45																										
4-Jul	30	75																									
5-Jul	11	86																									
6-Jul	24	110																									
7-Jul	110	110																									
8-Jul	39	149	90																								
9-Jul	149		90																								
10-Jul	149		90																								
11-Jul	57	206	123																								
12-Jul	206		213																								
13-Jul	50	256	399																								
14-Jul	256		612																								
15-Jul	33	289	79																								
16-Jul	289		691																								
17-Jul	289		691																								
18-Jul	14	303	146																								
19-Jul	303		837																								
20-Jul	36	339	186																								
21-Jul	339		1,023																								
22-Jul	21	360	127																								
23-Jul	360		1,150																								
24-Jul	360		1,150																								
25-Jul	25	385	65																								
26-Jul	4	389	115																								
27-Jul	3	392	28																								
28-Jul	1	393	81																								
29-Jul	11	404	111																								
30-Jul	404		29																								
31-Jul	404		46																								
1-Aug	6	410	21																								
4-Aug	1	411	22																								
5-Aug	3	414	35																								
8-Aug	1	415																									
12-Aug		415																									

Table 4. Commercial sockeye salmon catch by area and date, Upper Cook Inlet, 2002.

Date	Drift		Salamatof / E. Forelands			N & S K. Beach			Cohoe/Ninitchik			Total		West Side Subdistricts						Chinitina Bay		West Side		East Side	
	Daily	Cum	Daily	Cum	Daily	Daily	Cum	Daily	Daily	Cum	Daily	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
27-May																									
3-Jun																									
5-Jun																									
7-Jun																									
10-Jun																									
12-Jun																									
14-Jun																									
17-Jun																									
20-Jun																									
24-Jun																									
27-Jun	4,987	4,987																							
28-Jun	1	4,988																							
29-Jun	35	5,023																							
1-Jul	15,466	20,489																							
2-Jul	20,489	40,978																							
3-Jul	20,489	61,467																							
4-Jul	135,352	155,841																							
5-Jul	11,418	167,259																							
6-Jul	5,817	173,076																							
7-Jul																									
8-Jul	253,860	426,936	35,555																						
9-Jul			426,936	35,555																					
10-Jul			426,936	35,555																					
11-Jul	18,723	445,659	9,945																						
12-Jul			445,659	45,500																					
13-Jul	155,043	600,702	17,741	63,241																					
14-Jul			600,702	63,241																					
15-Jul	214,932	815,634	97,128	160,369																					
16-Jul			815,634	160,369																					
17-Jul			815,634	160,369																					
18-Jul	262,655	1,078,289	90,213	250,582																					
19-Jul			1,078,289	250,582																					
20-Jul	34,745	1,113,034	24,852	275,434																					
21-Jul			1,113,034	275,434																					
22-Jul	180,166	1,293,200	27,937	303,371																					
23-Jul			1,293,200	303,371																					
24-Jul			1,293,200	303,371																					
25-Jul	31,645	1,324,845	45,459	348,830																					
26-Jul	4,200	1,329,045	20,684	369,514																					
27-Jul	3,133	1,332,178	5,547	375,061																					
28-Jul	1,060	1,333,238	11,373	386,434																					
29-Jul	22,662	1,355,900	13,278	399,712																					
30-Jul	171	1,356,071	4,053	403,765																					
31-Jul	73	1,356,144	4,892	408,657																					
1-Aug	9,588	1,365,732	11,307	419,964																					
4-Aug			1,365,732	422,912																					
5-Aug	1,221	1,367,026	4,485	427,397																					
8-Aug	221	1,367,247		427,397																					
12-Aug	4	1,367,251		427,397																					
15-Aug				427,397																					
19-Aug				427,397																					
22-Aug				427,397																					
26-Aug				427,397																					
29-Aug				427,397																					
2-Sep				427,397																					



Table 6. Commercial pink salmon catch by area and date, Upper Cook Inlet, 2002.

Date	Drift		East Side Setnet				West Side Subdistricts				Northern District	
	Daily	Cum	Salamatof/E Forelands	N & S K. Beach	Cohoec/Nintilchik	Total	Western	Kustatan	Kalgin	Chinitna Bay	West Side	East Side
			Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum	Daily	Cum
27-May												
3-Jun												
5-Jun												
7-Jun												
10-Jun												
12-Jun												
14-Jun												
17-Jun												
20-Jun												
24-Jun												
27-Jun	3	3			1	1	1					
28-Jun				1	4	5	6					
29-Jun	3	6			1	6	7					
1-Jul	41	44			2	8	2	9				
2-Jul	44	88			8	16	9					
3-Jul	44	132			9	25						
4-Jul	409	453			14	39						
5-Jul	25	478			21	60						
6-Jul	25	503			26	86						
7-Jul	503	1,006			69	155						
8-Jul	2,955	3,458	83	83	60	129	1	1				
9-Jul	3,458	6,916	83	166	129	226						
10-Jul	3,458	10,374	83	249	138	364						
11-Jul	572	4,030	91	340	187	454	8	9				
12-Jul	4,030	8,060	174	514	454	684	9	18				
13-Jul	2,968	6,998	1,072	1,246	742	2,096	2	11				
14-Jul	6,998	13,996			1,196	2,780	11					
15-Jul	17,286	24,284	406	1,652	660	1,856	18	8	9			
16-Jul	24,284	26,710			516	2,424	29					
17-Jul	24,284	29,136			589	3,013	29					
18-Jul	76,253	100,537	1,272	2,924	785	2,928	29	205				
19-Jul	100,537	200,537	2,924	2,924	700	2,928	58					
20-Jul	3,298	103,835	1,615	4,539	840	4,386	58					
21-Jul	103,835	207,673	4,539	9,078	840	5,226	58					
22-Jul	51,558	155,393	1,885	6,424	1,240	6,226	50	108				
23-Jul	155,393	310,786	6,424	12,848	1,240	6,226	108					
24-Jul	155,393	466,179	6,424	19,272	1,240	6,226	108					
25-Jul	16,005	171,398	3,211	9,635	2,845	9,672	19	127				
26-Jul	1,393	172,791	5,590	15,225	3,446	12,720	127					
27-Jul	1,250	174,041	2,018	17,243	5,175	14,847	127					
28-Jul	321	174,362	4,297	21,540	4,442	17,289	127					
29-Jul	27,602	201,964	9,260	30,800	3,289	20,578	127					
30-Jul	321	202,285	3,141	33,941	14,123	33,208	222					
31-Jul	77	202,362	4,628	38,569	18,642	39,142	349					
1-Aug	14,108	216,470	6,007	44,576	22,162	43,896	349					
4-Aug	470	216,940	12,929	57,505	30,553	78,131	222					
5-Aug	5,839	222,779	19,978	77,483	5,934	91,725	222					
8-Aug	1,334	224,113	77,483	154,966	26,242	130,869	258	9				
12-Aug	116	224,229	77,483	155,452	12,111	67,851	607					
15-Aug	224,229	448,458	77,483	155,452	17,069	84,920	845					
18-Aug	224,229	672,687	77,483	155,452	21,477	106,397	86					
22-Aug	224,229	896,916	77,483	155,452	21,477	106,397	108					
26-Aug	224,229	1,121,145	77,483	155,452	21,477	106,397	123					
			77,483	155,452	84,920	214,771	1	1,163				
			77,483	155,452	84,920	214,771	32	1,195				
			77,483	155,452	84,920	214,771	23					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,920	214,771	222					
			77,483	155,452	84,							

Table 7. Commercial chum salmon catch by area and date, Upper Cook Inlet, 2002.

Date	Drift		East Side Setnet				West Side Subdistricts				Northern District	
	Daily	Cum	Salamatof/E Forelands	N & S K. Beach	Coho/Ninilchik	Total	Western	Kustatan	Kalgin	Chinina Bay	General	Eastern
			Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily
27-May												
3-Jun	297	297			1	1	3				22	88
5-Jun		297			1		1					88
7-Jun		297			1		4					88
10-Jun					1		8					88
12-Jun	2224	2,521			1		12		19	19		
14-Jun		2,521			1		21					
17-Jun		2,521			1		1					
20-Jun					1		4					
24-Jun	297	297			1	1	9	1	2		22	88
27-Jun					2		34					
28-Jun		297			2		40					
29-Jun		297			2		66					
1-Jul	2224	2,521			2		66					
2-Jul		2,521			2		101					
3-Jul		2,521			2		101					
4-Jul	8,516	11,037			2	2	31				104	198
5-Jul	19	11,056			2		132					
6-Jul	47	11,103			2		144					
7-Jul		11,103			2		160					
8-Jul	29814	40,917	2		2	6	27		14		219	345
9-Jul		40,917			3		187					
10-Jul		40,917			3		204					
11-Jul	668	41,585	5		3		204					
12-Jul		41,585			3		204					
13-Jul	3825	45,410	43	3	6	52	80					
14-Jul		45,410	50	3	9	62	31					
15-Jul	44909	90,319	22	3	10	32	63		8		1164	1,509
16-Jul		90,319		3	19		378					
17-Jul		90,319		3	19		409					
18-Jul	25567	115,886	72	3	1	95	21					
19-Jul		115,886	96	5	3	124	409					
20-Jul	993	116,879	143	1	6	54	841					
21-Jul		116,879	143	6	29	178	1,171					
22-Jul	45633	162,512	62	18	718	798	1,343		416		554	2,063
23-Jul		162,512	205	24	747		1,688		18		496	2,559
24-Jul		162,512	205	24	747		1,942					
25-Jul	12113	174,625	198	12	752	215	1,993					
26-Jul	11152	175,777	135	6	5	185	2,178		143			
27-Jul	1809	177,586	19		11	152	9					
28-Jul	892	178,478	97	42	8	27	2,282					
29-Jul	29397	207,875	37	1	10	781	95					
30-Jul	18	207,893	9	43	10	791	2,282		66			
31-Jul	9	207,902	17	43	4	48	3,057					
1-Aug	13049	220,951	28	43	5	13	3,057					
4-Aug	182	221,133	9	1	8	22	3,057					
5-Aug	3165	224,298	17	7	145	169	3,057					
8-Aug	271	224,569	771	52	967	1,790	573				921	3,480
12-Aug	18	224,587	771	52	967	1,790	3,630					
15-Aug		224,587	771	52	967	1,790	3,630					
19-Aug		224,587	771	52	967	1,790	1104				602	4,082
22-Aug		224,587	771	52	967	1,790	135				138	4,220
26-Aug		224,587	771	52	967	1,790	4869				87	4,307
29-Aug		224,587	771	52	967	1,790	127				82	4,389
2-Sep		224,587	771	52	967	1,790	108				16	4,405
5-Sep		224,587	771	52	967	1,790	5,278				12	4,417
9-Sep		224,587	771	52	967	1,790	104				5	4,426
			771	52	967	1,790	8		5		5	4,431
			771	52	967	1,790	3				5	4,436
			771	52	967	1,790	5,393				7	4,463
			771	52	967	1,790	5,393					438
			771	52	967	1,790	5,393					438

Table 8. Commercial salmon catch by gear, statistical area and species, Upper Cook Inlet, 2002.

Gear	District	Subdistrict	Stat Area	Permits	Chinook	Sockeye	Coho	Pink	Chum	Total
<b>Drift</b>	Central	All	All	<b>409</b>	<b>415</b>	<b>1,367,251</b>	<b>125,831</b>	<b>224,229</b>	<b>224,587</b>	<b>1,942,313</b>
<b>Set Net</b>	Central	Upper	24421	102	2,387	280,339	4,317	49,650	895	337,588
			24422	86	2,561	236,265	4,846	35,270	72	279,014
			24431	76	1,857	218,273	2,505	22,934	18	245,587
			24432	61	970	140,884	4,205	29,434	34	175,527
			24441	67	1,665	382,277	13,963	68,177	391	466,473
			24442	30	38	45,120	5,317	9,306	380	60,161
		<b>All</b>	<b>All</b>	<b>351</b>	<b>9,478</b>	<b>1,303,158</b>	<b>35,153</b>	<b>214,771</b>	<b>1,790</b>	<b>1,564,350</b>
		Kalgin Is.	24610	15	25	18,686	17,341	176	1,207	37,435
			24620	7	2	9,452	4,628	143	70	14,295
		<b>All</b>	<b>All</b>	<b>19</b>	<b>27</b>	<b>28,138</b>	<b>21,969</b>	<b>319</b>	<b>1,277</b>	<b>51,730</b>
	Western	Chinitna	24510	0	0	0	0	0	0	0
		Western	24520	0	0	0	0	0	0	0
			24530	22	341	28,386	6,648	281	4,866	40,522
			24540	1	17	383	1	0	59	460
			24550	4	4	6,099	5,631	914	468	13,116
		<b>All</b>	<b>All</b>	<b>26</b>	<b>362</b>	<b>34,868</b>	<b>12,280</b>	<b>1,195</b>	<b>5,393</b>	<b>54,098</b>
		Kustatan	24555	8	536	5,600	0	0	0	6,136
			24560	2	1	1,003	756	222	1	1,983
		<b>All</b>	<b>All</b>	<b>9</b>	<b>537</b>	<b>6,603</b>	<b>756</b>	<b>222</b>	<b>1</b>	<b>8,119</b>
	<b>All</b>	<b>All</b>	<b>All</b>	<b>384</b>	<b>10,404</b>	<b>1,372,767</b>	<b>70,158</b>	<b>216,507</b>	<b>8,461</b>	<b>1,678,297</b>
	Northern	General	24710	9	479	842	1,922	45	68	3,356
			24720	12	278	3,987	3,890	793	95	9,043
			24730	18	105	9,805	8,417	3,432	1,530	23,289
			24741	12	141	3,380	6,223	50	759	10,553
			24742	8	281	2,933	9,056	60	1,624	13,954
			24743	3	23	1,585	6,986	0	387	8,981
			24750	0	0	0	0	0	0	0
		<b>All</b>	<b>All</b>	<b>49</b>	<b>1,307</b>	<b>22,532</b>	<b>36,494</b>	<b>4,380</b>	<b>4,463</b>	<b>69,176</b>
		Eastern	24770	16	203	4,887	5,169	1,110	405	11,774
			24780	8	241	1,040	1,207	62	3	2,553
			24790	9	144	4,641	7,422	672	30	12,909
		<b>All</b>	<b>All</b>	<b>25</b>	<b>588</b>	<b>10,568</b>	<b>13,798</b>	<b>1,844</b>	<b>438</b>	<b>27,236</b>
		<b>All</b>	<b>All</b>	<b>72</b>	<b>1,895</b>	<b>33,100</b>	<b>50,292</b>	<b>6,224</b>	<b>4,901</b>	<b>96,412</b>
	<b>All</b>	<b>All</b>	<b>All</b>	<b>473</b>	<b>12,299</b>	<b>1,405,867</b>	<b>120,450</b>	<b>222,731</b>	<b>13,362</b>	<b>1,774,709</b>
<b>Seine</b>	<b>All</b>	<b>All</b>	<b>All</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>All</b>	<b>All</b>	<b>All</b>	<b>All</b>	<b>882</b>	<b>12,714</b>	<b>2,773,118</b>	<b>246,281</b>	<b>446,960</b>	<b>237,949</b>	<b>3,717,022</b>

Table 9. Commercial salmon catch per permit by statistical area, Upper Cook Inlet, 2002.

<b>Gear</b>	<b>District</b>	<b>Subdistrict</b>	<b>Stat Area</b>	<b>Permits</b>	<b>Chinook</b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
<b>Drift</b>	Central	All	All	<b>409</b>	<b>1.0</b>	<b>3,343</b>	<b>308</b>	<b>548</b>	<b>549</b>	<b>4,749</b>
<b>Set Net</b>	Central	Upper	24421	87	23	2,748	42	487	9	3,310
			24422	89	30	2,747	56	410	1	3,244
			24431	100	24	2,872	33	302	0	3,231
			24432	49	16	2,310	69	483	1	2,877
			24441	49	25	5,706	208	1,018	6	6,962
			24442	38	1	1,504	177	310	13	2,005
			<b>All</b>	<b>338</b>	<b>27</b>	<b>3,713</b>	<b>100</b>	<b>612</b>	<b>5</b>	<b>4,457</b>
		Kalgin Is.	24610	16	2	1,246	1,156	12	80	2,496
			24620	7	0	1,350	661	20	10	2,042
			<b>All</b>	<b>24</b>	<b>1</b>	<b>1,481</b>	<b>1,156</b>	<b>17</b>	<b>67</b>	<b>2,723</b>
		Chinitna	24510	0	0	0	0	0	0	0
	Western		24520	0	0	0	0	0	0	0
			24530	26	16	1,290	302	13	221	1,842
			24540	0	0	0	0	0	0	0
			24550	3	1	1,525	1,408	229	117	3,279
			<b>All</b>	<b>27</b>	<b>14</b>	<b>1,341</b>	<b>472</b>	<b>46</b>	<b>207</b>	<b>2,081</b>
	Kustatan		24555	14	67	700	0	0	0	767
			24560	2	1	502	378	111	1	992
			<b>All</b>	<b>9</b>	<b>60</b>	<b>734</b>	<b>84</b>	<b>25</b>	<b>0</b>	<b>902</b>
	<b>All</b>	<b>All</b>	<b>All</b>	<b>392</b>	<b>27</b>	<b>3,575</b>	<b>183</b>	<b>564</b>	<b>22</b>	<b>4,371</b>
	Northern	General	24710	13	53	94	214	5	8	373
			24720	28	23	332	324	66	8	754
			24730	23	6	545	468	191	85	1,294
			24741	7	12	282	519	4	63	879
			24742	16	35	367	1,132	8	203	1,744
			24743	9	8	528	2,329	0	129	2,994
			24750	0	0	0	0	0	0	0
			<b>All</b>	<b>60</b>	<b>27</b>	<b>460</b>	<b>745</b>	<b>89</b>	<b>91</b>	<b>1,412</b>
		Eastern	24770	20	13	305	323	69	25	736
			24780	10	30	130	151	8	0	319
			24790	12	16	516	825	75	3	1,434
			<b>All</b>	<b>37</b>	<b>24</b>	<b>423</b>	<b>552</b>	<b>74</b>	<b>18</b>	<b>1,089</b>
		<b>All</b>	<b>All</b>	<b>89</b>	<b>26</b>	<b>460</b>	<b>699</b>	<b>86</b>	<b>68</b>	<b>1,339</b>
	<b>All</b>	<b>All</b>	<b>All</b>	<b>474</b>	<b>26</b>	<b>2,972</b>	<b>255</b>	<b>471</b>	<b>28</b>	<b>3,752</b>
<b>Seine</b>	<b>All</b>	<b>All</b>	<b>All</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>All</b>	<b>All</b>	<b>All</b>	<b>All</b>	<b>941</b>	<b>14</b>	<b>3,144</b>	<b>279</b>	<b>507</b>	<b>270</b>	<b>4,214</b>

Table 10. Commercial fishery emergency orders issued during the 2002 Upper Cook Inlet fishing season (page 1 of 4).

Emergency Order No.	Effective Date	Action	Reason
2S-01-02	27-May	Opened the Northern District King Salmon commercial fishery on May 27, June 3, and June 10 from 7:00 a.m. until 1:00 p.m.	In compliance with the Northern District K.S. Management Plan
2S-02-02	27-Jun	Extended set gillnetting in the Kasilof Section on June 27 from 7:00 p.m. until Friday, Jun 28 at 7:00 p.m. Drift gillnetting was opened in the Kasilof Section on June 27 from 7:00 p.m. to Midnight and on June 28 from 5:00 a.m. until 7:00 p.m.	To reduce the escapement rate of Kasilof River sockeye salmon.
2S-03-02	27-Jun	Extended set gillnetting in that portion of the Western Subdistrict south of Redoubt Point From 7:00 p.m. on June 27 until 7:00 p.m. on June 29.	To reduce the escapement rate of Crescent River sockeye salmon.
2S-04-02	28-Jun	Extended set gillnetting in the Kasilof Section on June 28 from 7:00 p.m. until 7:00 p.m. on June 29. Drift gillnetting was opened in the Kasilof Section on June 28 from 7:00 p.m. until Midnight and on June 29 from 5:00 a.m. until 7:00 p.m.	To reduce the escapement rate of Kasilof River sockeye salmon.
2S-05-02	1-Jul	Extended set gillnetting in that portion of the Western Subdistrict south of Redoubt Point from July 1 until further notice.	To reduce the escapement rate of Crescent River sockeye salmon.
2S-06-02	1-Jul	Extended set gillnetting in the Kasilof Section on July 1 from 7:00 p.m. until 11:00 p.m. Drift gillnetting was open in the Kasilof Section on July 1 from 7:00 p.m. until 11:00 p.m.	To reduce the escapement rate of Kasilof River sockeye salmon.
2S-07-02	5-Jul	Extended set gillnetting in the Kasilof Section on July 4 from 7:00 p.m. until 7:00 p.m. on July 5. Drift gillnetting was opened in the Kasilof Section on July 4 from 7:00 p.m. until 11:00 p.m. and on July 5 from 5:00 a.m. until 7:00 p.m.	To reduce the escapement rate of Kasilof River sockeye salmon.
2S-08-02	5-Jul	Extended set gillnetting in the Kasilof Section on July 5 from 7:00 p.m. until 3:00 p.m. on July 6. Drift gillnetting was opened in the Kasilof Section on July 5 from 7:00 p.m. until 11:00 p.m. and on July 6 from 5:00 a.m. until 3:00 p.m.	To reduce the escapement rate of Kasilof River sockeye salmon.



Table 10. Commercial fishery emergency orders issued during the 2002 Upper Cook Inlet fishing season (page 2 of 4).

Emergency Order No.	Effective Date	Action	Reason
2S-09-02	10-Jul	Opened set gillnetting in the Kasilof Section within 1/2 mile of the mean high tide mark on July 10 from 11:00 a.m. until 7:00 p.m.	To reduce the escapement rate of Kasilof River sockeye salmon.
2S-10-02	11-Jul	Closed drift gillnetting in the Central District except in the Kenai and Kasilof Sections on July 11 from 7:00 a.m. until 7:00 p.m.	To reduce the exploitation rate on Susitna River sockeye salmon.
2S-11-02	13-Jul	Opened set gillnetting in the Kenai, Kasilof, and East Forelands Sections on July 13 from 6:00 a.m. until 10:00 p.m. Drift gillnetting was opened in the Kenai and Kasilof Sections on July 13 from 6:00 a.m. until 10:00 p.m.	To reduce the escapement rate of Kenai and Kasilof River sockeye salmon.
2S-12-02	17-Jul	Opened set gillnetting in that portion of the Kasilof Section within 1/2 mile of the mean high tide mark on July 17 from 4:00 a.m. until 12:00 Noon.	To reduce the escapement rate of Kasilof River sockeye salmon.
2S-13-02	20-Jul	Opened set gillnetting in the Kenai, Kasilof, and East Forelands Section on July 20 from 6:00 a.m. until 10:00 p.m. Drift gillnetting was open in the Kenai and Kasilof Sections on July 20 from 6:00 a.m. until 10:00 p.m.	To reduce the escapement rate of Kenai and Kasilof River sockeye salmon.
2S-14-02	22-Jul	Closed drift gillnetting in the Central District north of the latitude of Collier's Dock on July 22 from 7:00 a.m. until 7:00 p.m. In the Northern District, legal gear was reduced to one set gillnet per permit on July 22 from 7:00 a.m. until 7:00 p.m.	To reduce the exploitation rate on Susitna River sockeye salmon.
2S-15-02	25-Jul	Opened set gillnetting in the Kenai, Kasilof, and East Forelands Sections on July 25 from 5:00 a.m. until 7:00 a.m. Drift gillnetting was opened in the Kenai and Kasilof Sections on July 25 from 5:00 a.m. until 7:00 a.m.	To reduce the escapement rate of Kenai and Kasilof River sockeye salmon.

Table 10. Commercial fishery emergency orders issued during the 2002 Upper Cook Inlet fishing season (page 3 of 4).

Emergency Order No.	Effective Date	Action	Reason
2S-16-02	25-Jul	Closed set gillnetting in the Northern District on July 25 from 7:00 a.m. until 7:00 p.m. Drift gillnetting was closed in the Central District except in the Kenai and Kasilof Sections and south of the latitude of the south end of Kalgin Island on July 25 from 7:00 a.m. until 7:00 p.m.	To reduce the exploitation rate on Susitna River sockeye & coho salmon.
2S-17-02	25-Jul	Extended set gillnetting in the Kenai, Kasilof, and East Foreland Sections on July 25 from 7:00 p.m. until 2:00 p.m. on July 26. Drift gillnetting was opened in the Kenai and Kasilof Sections on July 25 from 7:00 p.m. until 11:00 p.m. and on July 26 from 5:00 a.m. until 2:00 p.m.	To reduce the escapement rate of Kenai and Kasilof River sockeye salmon.
2S-18-02	26-Jul	Extended set gillnetting in the Kenai, Kasilof, and East Foreland Sections on July 26 from 2:00 p.m. until 9:00 p.m. Drift gillnetting was opened in the Kenai and Kasilof Sections on July 26 from 2:00 p.m. until 11:00 p.m.	To reduce the escapement rate of Kenai and Kasilof River sockeye salmon.
2S-19-02	28-Jul	Opened set gillnetting in the Kenai, Kasilof, and East Forelands Sections on July 27 from 4:00 p.m. until 12:00 Noon on July 28. Drift gillnetting was opened in the Kenai and Kasilof Sections on July 27 from 4:00 p.m. until 11:00 p.m. and on July 28 from 5:00 a.m. until 12:00 Noon.	To reduce the escapement rate of Kenai and Kasilof River sockeye salmon.
2S-20-02	29-Jul	Closed set gillnetting in the Northern District on July 29 from 7:00 a.m. until 7:00 p.m. Drift gillnetting was closed in the Central District except in the Kenai and Kasilof Sections and south of the latitude of the south end of Kalgin Island on July 29 from 7:00 a.m. until 7:00 p.m.	To reduce the exploitation rate of Susitna River sockeye salmon while allowing for continued exploitation of Kenai and Kasilof River sockeye salmon.
2S-21-02	29-Jul	Extended set gillnetting in the Kenai, Kasilof, and East Forelands Sections on July 29 from 7:00 p.m. until 11:00 p.m. Drift gillnetting was opened in the Kenai and Kasilof Sections on July 29 from 7:00 p.m. until 11:00 p.m.	To reduce the escapement rate of Kenai and Kasilof River sockeye salmon.

Table 10. Commercial fishery emergency orders issued during the 2002 Upper Cook Inlet fishing season (page 4 of 4).

Emergency Order No.	Effective Date	Action	Reason
2S-22-02	30-Jul	Opened set gillnetting in the Kenai, Kasilof, and East Forelands Sections on July 30 from 4:00 p.m. until 12:00 Noon on July 31. Drift gillnetting was opened in the Kenai and Kasilof Sections on July 30 from 4:00 p.m. until 11:00 p.m. and on July 31 from 5:00 a.m. until 12:00 Noon.	To reduce the escapement rate of Kenai and Kasilof River sockeye salmon.
2S-23-02	5-Aug	Rescinded Emergency Order No. 5, effective at 7:00 p.m. on August 5, returning set gillnetting in the Western Subdistrict south of Redoubt Pt. to regular Monday and Thursday 12-hour fishing periods.	To reduce the exploitation rate of coho salmon in the Western Subdistrict.
2S-24-02	4-Aug	Opened set gillnetting in the Kenai, Kasilof, and East Forelands Sections on August 4 from 7:00 a.m. until August 5 at 7:00 a.m. Drift gillnetting was opened in the Kenai and Kasilof Sections on August 4 from 7:00 a.m. until 11:00 p.m. and on August 5 from 5:00 a.m. until 7:00 a.m.	To reduce the escapement rate of Kenai and Kasilof River sockeye salmon.
2S-25-02	9-Aug	Opened drift gillnetting in new pink salmon drift gillnet fishing area (5 AAC 21.356) on August 12, 14, & 16 from 7:00 am until 7:00 pm	To implement the new Experimental Drift Gillnet Pink Salmon Management Plan.

Table 11. Commercial salmon fishing periods, Upper Cook Inlet, 2002 (page 1 of 3).

Date	Day	Time	Set Gill Net	Drift Gill Net
27-May	Mon	0700-1300	Northern District	
3-Jun	Mon	0700-1300	Northern District	
		0700-1900	Kustatan/Big River	
5-Jun	Wed	0700-1900	Kustatan/Big River	
7-Jun	Fri	0700-1900	Kustatan/Big River	
10-Jun	Mon	0700-1300	Northern District	
		0700-1900	Kustatan/Big River	
12-Jun	Wed	0700-1900	Kustatan/Big River	
14-Jun	Fri	0700-1900	Kustatan/Big River	
17-Jun	Mon	0700-1300	Northern District	
		0700-1900	Kustatan/Big River	
19-Jun	Wed	0700-1900	Kustatan/Big River	
20-Jun	Thu	0700-1900	Western Subdistrict	
21-Jun	Fri	0700-1900	Kustatan/Big River	
24-Jun	Mon	0700-1900	Kustatan/Big River/Western Subdistrict	
27-Jun	Thu	0700-1900	All except Kenai & E. Forelands Sections	All
		1900-2400	Kasilof Section & Western Subdistrict S. of Redoubt Pt.	Kasilof Section
28-Jun	Fri	0000-2400	Kasilof Section & Western Subdistrict S. of Redoubt Pt.	
		0500-2400		Kasilof Section
29-Jun	Sat	0000-1900	Kasilof Section & Western Subdistrict S. of Redoubt Pt.	
		0500-1900		Kasilof Section
1-Jul	Mon	0700-1900	All except Kenai & E. Forelands Sections	All
		1900-2300	Kasilof Section	Kasilof Section
		1900-2400	Western Subdistrict S. of Redoubt Pt.	
2-Jul	Tue	0000-2400	Western Subdistrict S. of Redoubt Pt.	
3-Jul	Wed	0000-2400	Western Subdistrict S. of Redoubt Pt.	
4-Jul	Thu	0000-0700	Western Subdistrict S. of Redoubt Pt.	
		0700-1900	All except Kenai & E. Forelands Sections	All
		1900-2300		Kasilof Section
		1900-2400	Kasilof Section & Western Subdistrict S. of Redoubt Pt.	
5-Jul	Fri	0000-2400	Kasilof Section & Western Subdistrict S. of Redoubt Pt.	
		0500-2300		Kasilof Section
6-Jul	Sat	0000-1500	Kasilof Section & Western Subdistrict S. of Redoubt Pt.	
		0500-1500		Kasilof Section
		1500-2400	Western Subdistrict S. of Redoubt Pt.	
7-Jul	Sun	0000-2400	Western Subdistrict S. of Redoubt Pt.	
8-Jul	Mon	0000-0700	Western Subdistrict S. of Redoubt Pt.	
		0700-1900	All	All
		1900-2400	Western Subdistrict S. of Redoubt Pt.	

continued

Table 11. Commercial salmon fishing periods, Upper Cook Inlet, 2002 (page 2 of 3).

Date	Day	Time	Set Gill Net	Drift Gill Net
9-Jul	Tue	0000-2400	Western Subdistrict S. of Redoubt Pt.	Kenai & Kasilof Sections
10-Jul	Wed	0000-2400	Western Subdistrict S. of Redoubt Pt.	
		1100-1900	Kasilof Section within 1/2 mile of shore	
11-Jul	Thu	0000-0700	Western Subdistrict S. of Redoubt Pt.	
		0700-1900	All	
		1900-2400	Western Subdistrict S. of Redoubt Pt.	Kenai & Kasilof Sections
12-Jul	Fri	0000-2400	Western Subdistrict S. of Redoubt Pt.	
13-Jul	Sat	0000-2400	Western Subdistrict S. of Redoubt Pt.	
		0600-2200	Kenai, Kasilof & East Forelands Sections	
14-Jul	Sun	0000-2400	Western Subdistrict S. of Redoubt Pt.	
15-Jul	Mon	0000-0700	Western Subdistrict S. of Redoubt Pt.	All
		0700-1900	All	
		1900-2400	Western Subdistrict S. of Redoubt Pt.	
16-Jul	Tue	0000-2400	Western Subdistrict S. of Redoubt Pt.	
17-Jul	Wed	0000-2400	Western Subdistrict S. of Redoubt Pt.	
		0400-1200	Kasilof Section withing 1/2 mile of shore	All
18-Jul	Thu	0000-0700	Western Subdistrict S. of Redoubt Pt.	
		0700-1900	All	
		1900-2400	Western Subdistrict S. of Redoubt Pt.	
19-Jul	Fri	0000-2400	Western Subdistrict S. of Redoubt Pt.	
20-Jul	Sat	0000-2400	Western Subdistrict S. of Redoubt Pt.	Kenai & Kasilof Sections
		0600-2000	Kenai, Kasilof & East Forelands Sections	
21-Jul	Sun	0000-2400	Western Subdistrict S. of Redoubt Pt.	
22-Jul	Mon	0000-0700	Western Subdistrict S. of Redoubt Pt.	
		0700-1900	All <sup>a</sup>	
		1900-2400	Western Subdistrict S. of Redoubt Pt.	All except north of Collier's Dock latitude
23-Jul	Tue	0000-2400	Western Subdistrict S. of Redoubt Pt.	
24-Jul	Wed	0000-2400	Western Subdistrict S. of Redoubt Pt.	
25-Jul	Thu	0000-0500	Western Subdistrict S. of Redoubt Pt.	
		0500-0700	Kenai, Kasilof & East Forelands Sections	
		0700-1900	All except Northern District	All except north of south end of Kalgin Isl.
		1900-2400	Kenai, Kasilof, E. Forelands, and W. Sub. S. of R. Pt	
		1900-2300		
26-Jul	Fri	0000-2400	Western Subdistrict S. of Redoubt Pt.	
		0000-2100	Kenai, Kasilof & East Forelands Sections	
		0500-2300		Kenai & Kasilof Sections
27-Jul	Sat	0000-2400	Western Subdistrict S. of Redoubt Pt.	
		1600-2400	Kenai, Kasilof & East Forelands Sections	
		1600-2300		

-continued-

Table 11. Commercial salmon fishing periods, Upper Cook Inlet, 2002 (page 3 of 3).

Date	Day	Time	Set Gill Net	Drift Gill Net
28-Jul	Sun	0000-2400	Western Subdistrict S. of Redoubt Pt.	
		0000-1200	Kenai, Kasilof & East Forelands Sections	
		0500-1200		Kenai & Kasilof Sections
29-Jul	Mon	0000-0700	Western Subdistrict S. of Redoubt Pt.	
		0700-1900	All except Northern District	All except north of south end of Kalgin Isl.
		1900-2300	Kenai, Kasilof & East Forelands Sections	Kenai & Kasilof Sections
		1900-2400	Western Subdistrict S. of Redoubt Pt.	
30-Jul	Tue	0000-2400	Western Subdistrict S. of Redoubt Pt.	
		1600-2300		Kenai & Kasilof Sections
		1600-2400	Kenai, Kasilof & East Forelands Sections	
31-Jul	Wed	0000-2400	Western Subdistrict S. of Redoubt Pt.	
		0000-1200	Kenai, Kasilof & East Forelands Sections	
		0500-1200		Kenai & Kasilof Sections
1-Aug	Thu	0000-0700	Western Subdistrict S. of Redoubt Pt.	
		0700-1900	All <sup>b</sup>	All
		1900-2400		
2-Aug	Fri	0000-2400	Western Subdistrict S. of Redoubt Pt.	
3-Aug	Sat	0000-2400	Western Subdistrict S. of Redoubt Pt.	
4-Aug	Sun	0000-2400	Western Subdistrict S. of Redoubt Pt.	
		0700-2300		Kenai & Kasilof Sections
		0700-2400	Kenai, Kasilof & East Forelands Sections	
5-Aug	Mon	0000-0700	Kenai, Kasilof, E. Forelands, and W. Sub. S. of R. Pt	
		0500-0700		Kenai & Kasilof Sections
		0700-1900	All <sup>b</sup>	All
8-Aug	Thu	0700-1900	Northern District, Kalgin Isl, and all West Side <sup>2</sup>	All
12-Aug	Mon	0700-1900	Northern District, Kalgin Isl, and all West Side	New pink salmon area (5 AAC 21.356)
14-Aug	Wed	0700-1900		New pink salmon area (5 AAC 21.356)
15-Aug	Thu	0700-1900	Northern District, Kalgin Isl, and all West Side	
16-Aug	Fri	0700-1900		New pink salmon area (5 AAC 21.356)
19-Aug	Mon	0700-1900	Northern District, Kalgin Isl, and all West Side	
22-Aug	Thu	0700-1900	Northern District, Kalgin Isl, and all West Side	
26-Aug	Mon	0700-1900	Northern District, Kalgin Isl, and all West Side	
29-Aug	Thu	0700-1900	Northern District, Kalgin Isl, and all West Side	
2-Sep	Mon	0700-1900	Northern District, Kalgin Isl, and all West Side	
5-Sep	Thu	0700-1900	Northern District, Kalgin Isl, and all West Side	
9-Sep	Mon	0700-1900	Northern District, Kalgin Isl, and all West Side	
12-Sep	Thu	0700-1900	Northern District, Kalgin Isl, and all West Side	
16-Sep	Mon	0700-1900	Northern District, Kalgin Isl, and all West Side	

<sup>a</sup> Northern District reduced to one set gillnet per permit

<sup>b</sup> Northern District reduced to two set gillnets per permit

Table 12. Age composition (in percent) of sockeye salmon escapements, Upper Cook Inlet, 2002.

Age Class												
Stream	0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	3.3
Kenai River	0.1		0.04	23.0	0.7	58.4	10.6	0.1	0.7	6.1	0.1	0.04
Kasilof River		0.3		33.9	1.5	38.1	19.3		0.3	6.6		0.1
Yentna River	1.7	0.7	2.0	28.8		51.0	5.5			10.2		0.2
Crescent River				19.1	0.1	33.7	11.2		0.3	35.5		0.1
Fish Creek				74.7	2.1	3.3	15.9	0.2		0.5		
Packers Creek (not sampled)		3.3										

Table 13. Upper Cook Inlet salmon average weights (in pounds) by area, 2002<sup>a</sup>.

<b>Fishery</b>	<b>CHINOOK</b>	<b>SOCKEYE</b>	<b>COHO</b>	<b>PINK</b>	<b>CHUM</b>
<b>Upper Cook Inlet Total</b>	<b>22.3</b>	<b>6.4</b>	<b>6.7</b>	<b>3.8</b>	<b>7.9</b>
<b>A. Northern District Total</b>	<b>18.0</b>	<b>6.0</b>	<b>7.0</b>	<b>3.7</b>	<b>7.3</b>
1. Northern District West	18.1	6.3	6.9	3.6	7.3
a. Trading Bay 247-10	18.1	5.5	7.1	3.7	6.9
b. Tyonek 247-20	15.9	6.6	6.6	3.3	6.9
c. Beluga 247-30	18.9	6.7	6.5	3.7	6.7
d. Susitna Flat 247-41	17.7	5.8	6.9	3.1	7.6
e. Pt. Mackenzie 247-42	19.6	5.9	7.1	3.5	7.6
f. Fire Island 247-43	22.1	5.7	7.1		7.2
2. Northern District East	17.9	5.2	7.4	4.1	7.9
a. Pt. Possession 247-70	18.9	5.3	7.2	4.0	8.0
b. Birch Hill 247-80	17.4	5.0	7.5	3.6	9.0
c. Number 3 Bay 247-90	17.4	5.1	7.5	4.2	6.9
<b>B. Central District Total</b>	<b>23.1</b>	<b>6.4</b>	<b>6.6</b>	<b>3.8</b>	<b>7.9</b>
1. East Side Set Total	23.7	6.1	6.8	4.1	6.4
a. Salamatof/EastForelands	26.4	6.6	6.6	3.9	7.3
1. Salamatof 244-41	26.6	6.7	6.5	3.9	7.0
2. East Forelands 244-42	17.0	6.0	6.9	3.8	7.6
b. Kalifonsky Beach	23.2	6.2	6.9	4.2	6.7
1. South K. Beach 244-31	22.9	6.0	6.6	4.2	7.7
2. North K. Beach 244-32	23.7	6.6	7.0	4.2	6.2
d. Cohoe/Ninilchik	23.0	5.6	7.0	4.3	5.6
1. Cohoe 244-22	22.2	5.6	6.6	4.4	7.1
2. Ninilchik 244-21	23.9	5.5	7.4	4.1	5.5
2. West Side Set Total	24.1	6.0	6.9	3.6	7.9
a. Little Jack Slough 245-50	18.5	5.3	6.8	3.6	8.1
b. Polly Creek 245-40	25.5	6.5	6.0		7.7
c. Tuxedni Bay 245-30	24.1	6.1	6.9	3.4	7.9
3. Kustatan Total	18.8	5.3	6.8	3.1	11.0
a. Big River 245-55	18.8	5.1			
b. West Foreland 245-60	14.0	6.9	6.8	3.1	11.0
4. Kalgin Island Total	23.7	5.4	6.8	3.6	7.5
a. West Side 246-10	24.1	5.5	6.6	3.3	7.5
b. East Side 246-20	18.5	5.2	7.2	4.1	7.6
5. Chinitna Bay Total					
6. Central District Set Total	23.4	6.1	6.8	4.1	7.5
7. Central District Drift Total	<b>13.5</b>	<b>6.8</b>	<b>6.5</b>	<b>3.5</b>	<b>7.9</b>
a. West Side 245-70,80,90	13.5	6.7	6.9	3.6	7.9
b. East Side 244-50,60,70	13.4	6.8	6.5	3.5	7.9
c. East Side Corridor Total	13.7	6.9	6.6	3.6	7.7
2. Kasilof Section 244-61	13.7	6.4	6.0	4.1	7.9
3. Kenai/Kasilof Section 244-55	13.7	7.0	6.6	3.6	7.7

<sup>a</sup> Pounds of fish divided by numbers of fish from commercial harvest tickets.



Table 14. Buyers and processors of Upper Cook Inlet fishery products, 2002.

Buyer/Processor	Plant Site	Contact	Address
Alaska Sea Pack Inc. F4323	Anchorage		1304 Laona Circle Anchorage, AK
Alaska Salmon Purchasers F3529; F4665	Kenai	Mark Powell	HC01 Box 240 Kenai, AK 99611-0240
Alaskan Smoked Salmon F0902-9	Anchorage	Chris Rosauer	8430 Laviento Dr. Anchorage, AK 99556-0083
Coal Point Trading F1757	Homer	Nancy Hillstrand	P.O. 674 Homer, Ak. 99603
Deep Creek Custom Packing F1051-5	Ninilchik	Jeff Berger	P.O. Box 39229 Ninilchik Ak. 99639
Favco Inc F0398	Anchorage	Randy Rau	P.O. Box 190968 Anchorage, AK 99519-0968
Fishhawk Fisheries F1540-1	Kenai	Steve Fick	P.O. Box 715 Astoria Or. 97103
Glacier Fresh Seafoods F1979	Seward	Keith Bailey	P.O. Box 1989 Seward, AK 99664-1989
Great Pacific Seafoods Inc. F2857	Anchorage		4401 W. Old Int. Airport Rd., Anchorage, AK
Icicle Seafoods F0135	Seward	Melody Jordan	P.O. Box 79003 Seattle Wa. 98119
Inlet Fisheries Inc. F4682-0	Kenai	Patrick Klier	P.O. Box 530 Kenai Ak. 99611
Ocean Beauty F5204	Kenai	Pat Hardina	Box 8163 Nikiski Ak. 99635
Pacific Star Seafoods F1834	Kenai	Dan Foley	520 Bridge Access Rd. Kenai, AK 99611
R & J Enterprises F3411	Kasilof	Juanita Meier	Box 165 Kasilof Ak. 99610
Salamatof Seafoods F0037-1	Kenai	Wylie Reed	P.O. Box 1450 Kenai Ak. 99615
Seasonal Seafoods F0998	Kasilof		Ledoux Rd. Terminus Kasilof, AK 99610
Snug Harbor Seafoods F3894	Kenai	Paul Dale	P.O. Box 701 Kenai, AK 99611
Tim Berg's Ak Fish Adventures F3789	Soldotna	Tim Berg	720 K. Beach Rd. Soldotna, 99669

Table 15. Reported personal use harvest by gear, area and species, Upper Cook Inlet, 2002.

Fishery	No. of Households	No. of Household Days Fished	Harvest				Total
			Chinook	Sockeye	Coho	Pink	
Did Not Fish	4,858						
Kasilof Gillnet		1,025	192	17,980	12	30	18,227
Kasilof Dip Net		4,020	106	46,769	1,197	1,862	50,073
Kenai Dip Net		14,840	606	180,028	1,721	5,662	188,568
Fish Creek Dip Net		9	0	0	0	0	0
No Site Reported			166	14,846	341	916	16,323
Blank Report Returned	458	1,339					
Permits Not Returned	3,284						
Total	17,568 <sup>a</sup>		1,070	259,623	3,271	8,470	273,191 <sup>b</sup>

<sup>a</sup> The total households is not the sum of the column because some households fished at more than one site.

<sup>b</sup> Harvest data is expanded for permits (approximately 18.1 percent) that were not returned as required. Does not include educational or subsistence fishery harvests.

Table 16. Age, weight, sex, and size distribution of Pacific herring sampled by gillnet in Upper Cook Inlet, 2002.

Average of three sample dates: 5/17, 5/21, 5/31.

Sample Region	Age	Numbers of Fish				Percent of Total	Weight			Length		
		Male	Ripe Female	Spawned Female	Total		Mean (g)	SD	Number Weighed	Mean (mm)	SD	Number Measured
ESSN	3	0	0	0	0	0.4%	92	0	1	197	0	1
	4	1	3	0	4	4.3%	133	18	4	213	9	4
	5	7	9	3	19	20.7%	147	21	20	223	10	20
	6	7	8	4	20	21.1%	162	21	20	234	8	20
	7	8	7	3	18	18.9%	175	21	18	239	9	18
	8	7	5	3	15	16.1%	183	23	15	244	9	15
	9	5	6	1	12	12.9%	189	23	12	242	11	12
	10	3	1	0	5	5.0%	197	18	5	248	7	5
	11	1	0	0	1	0.7%	179	12	31	244	5	31
	Sample Total	40	39	14	93	100%	171	36.4	125	237	14	94
	Sex Composition	43%	42%	15%								

Average of three sample dates: 5/14, 5/17, 5/21.

Sample Region	Age	Numbers of Fish				Percent of Total	Weight			Length		
		Male	Ripe Female	Spawned Female	Total		Mean (g)	SD	Number Weighed	Mean (mm)	SD	Number Measured
Chinitna Bay	3					0.0%						
	4	2	3	0	5	5.7%	137	10	5	220	2	5
	5	15	13	0	28	30.0%	149	19	28	229	8	28
	6	27	14	0	41	43.9%	160	18	41	233	8	41
	7	3	1	0	4	4.3%	173	27	4	239	9	4
	8	3	0	0	3	2.9%	185	19	3	246	7	3
	9	1	1	0	2	2.5%	222	29	2	253	7	2
	10					0.0%						
	11					0.0%						
	Sample Total	51	32	0	83	89%	158	24.2	83	232	10.9	83
	Sex Composition	62%	38%	0%								



**Table 17. Seldovia District tide tables, April-September, 2002 (page 2 of 3).**

June												July											
HIGH TIDES						LOW TIDES						HIGH TIDES						LOW TIDES					
Date	Day	A.M.	Time	Feet	P.M.	Date	Day	A.M.	Time	Feet	P.M.	Date	Day	A.M.	Time	Feet	P.M.	Date	Day	A.M.	Time	Feet	P.M.
1	Sat	7:02a	14.7	8:33p	14.3	1	Sat	1:13a	5.5	1:41p	1.5	1	Mon	7:25a	14.1	8:27p	14.9	1	Mon	1:35a	5.1	1:44p	2.5
2	Sun	8:02a	13.3	9:33p	14.0	2	Sun	2:17a	6.1	2:38p	2.8	2	Tue	8:23a	13.0	9:13p	14.6	2	Tue	2:32a	5.3	2:32p	3.9
3	Mon	9:13a	12.4	10:31p	14.1	3	Mon	3:31a	6.1	3:42p	3.8	3	Wed	9:31a	12.2	10:02p	14.6	3	Wed	3:37a	5.2	3:28p	5.0
4	Tue	10:31a	12.2	11:20p	14.6	4	Tue	4:46a	5.5	4:44p	4.3	4	Thu	10:46a	12.0	10:52p	14.9	4	Thu	4:44a	4.6	4:29p	5.8
5	Wed	11:42a	12.6	-----	-----	5	Wed	5:46a	4.3	5:38p	4.4	5	Fri	11:59a	12.5	11:42p	15.5	5	Fri	5:45a	3.5	5:30p	6.1
6	Thu	12:02a	15.3	12:40p	13.5	6	Thu	6:33a	2.9	6:25p	4.4	6	Sat	-----	-----	1:00p	13.5	6	Sat	6:36a	2.2	6:25p	5.9
7	Fri	12:39a	16.2	1:28p	14.5	7	Fri	7:13a	1.4	7:07p	4.2	7	Sun	12:29a	16.3	1:50p	14.6	7	Sun	7:20a	0.8	7:15p	5.4
8	Sat	1:14a	17.0	2:11p	15.5	8	Sat	7:50a	0.1	7:46p	3.9	8	Mon	1:15a	17.3	2:35p	15.7	8	Mon	8:02a	-0.7	8:01p	4.7
9	Sun	1:49a	17.9	2:51p	16.3	9	Sun	8:25a	-1.1	8:25p	3.7	9	Tue	1:59a	18.3	3:16p	16.7	9	Tue	8:42a	-2	8:45p	3.9
10	Mon	2:25a	18.5	3:31p	16.9	10	Mon	9:02a	-2.1	9:04p	3.5	10	Wed	2:43a	19.1	3:56p	17.5	10	Wed	9:22a	-3	9:29p	3.2
11	Tue	3:02a	19.0	4:11p	17.2	11	Tue	9:39a	-2.8	9:44p	3.4	11	Thu	3:27a	19.8	4:37p	18.1	11	Thu	10:03a	-3.7	10:12p	2.6
12	Wed	3:40a	19.1	4:52p	17.2	12	Wed	10:18a	-3.1	10:25p	3.5	12	Fri	4:12a	20.0	5:18p	18.4	12	Fri	10:45a	-3.9	10:58p	2.3
13	Thu	4:21a	19.0	5:36p	16.9	13	Thu	10:59a	-3.1	11:09p	3.7	13	Sat	4:58a	19.7	6:00p	18.4	13	Sat	11:27a	-3.6	11:46p	2.1
14	Fri	5:04a	18.4	6:22p	16.6	14	Fri	11:42a	-2.6	11:57p	3.9	14	Sun	5:47a	18.9	6:44p	18.3	14	Sun	-----	-----	12:12p	-2.6
15	Sat	5:53a	17.6	7:11p	16.3	15	Sat	-----	-----	12:30p	-1.9	15	Mon	6:41a	17.7	7:31p	18.1	15	Mon	12:37a	2	12:59p	-1.2
16	Sun	6:49a	16.5	8:04p	16.1	16	Sun	12:52a	4.1	1:22p	-0.8	16	Tue	7:41a	16.2	8:21p	17.8	16	Tue	1:35a	2.1	1:51p	0.5
17	Mon	7:54a	15.3	9:01p	16.2	17	Mon	1:55a	4.1	2:19p	0.3	17	Wed	8:50a	14.9	9:16p	17.5	17	Wed	2:40a	2.1	2:49p	2.2
18	Tue	9:08a	14.5	9:59p	16.6	18	Tue	3:07a	3.6	3:23p	1.4	18	Thu	10:09a	14.0	10:16p	17.3	18	Thu	3:52a	1.8	3:55p	3.7
19	Wed	10:28a	14.2	10:56p	17.3	19	Wed	4:21a	2.5	4:28p	2.1	19	Fri	11:33a	14.0	11:19p	17.4	19	Fri	5:06a	1	5:05p	4.5
20	Thu	11:45a	14.7	11:50p	18.1	20	Thu	5:30a	0.9	5:32p	2.5	20	Sat	-----	-----	12:48p	14.8	20	Sat	6:15a	0	6:13p	4.7
21	Fri	-----	-----	12:53p	15.5	21	Fri	6:30a	-0.8	6:31p	2.7	21	Sun	12:21a	17.8	1:49p	15.8	21	Sun	7:13a	-1.1	7:13p	4.3
22	Sat	12:42a	18.9	1:52p	16.5	22	Sat	7:23a	-2.3	7:25p	2.6	22	Mon	1:17a	18.3	2:39p	16.7	22	Mon	8:03a	-2	8:05p	3.8
23	Sun	1:31a	19.6	2:43p	17.3	23	Sun	8:11a	-3.3	8:14p	2.5	23	Tue	2:07a	18.8	3:22p	17.5	23	Tue	8:48a	-2.5	8:52p	3.2
24	Mon	2:17a	19.9	3:30p	17.8	24	Mon	8:56a	-3.9	9:01p	2.4	24	Wed	2:52a	19.2	4:01p	17.9	24	Wed	9:28a	-2.8	9:34p	2.8
25	Tue	3:01a	19.9	4:14p	18.0	25	Tue	9:39a	-4.0	9:46p	2.5	25	Thu	3:33a	19.3	4:37p	18.1	25	Thu	10:05a	-2.6	10:14p	2.6
26	Wed	3:44a	19.6	4:56p	17.8	26	Wed	10:21a	-3.6	10:30p	2.8	26	Fri	4:13a	19.1	5:11p	18.1	26	Fri	10:40a	-2.1	10:53p	2.6
27	Thu	4:27a	18.9	5:38p	17.4	27	Thu	11:01a	-2.8	11:14p	3.3	27	Sat	4:51a	18.5	5:44p	17.7	27	Sat	11:14a	-1.3	11:31p	2.9
28	Fri	5:08a	18.0	6:19p	16.7	28	Fri	11:41a	-1.7	11:58p	3.9	28	Sun	5:29a	17.6	6:17p	17.3	28	Sun	11:48a	-0.2	-----	-----
29	Sat	5:51a	16.8	7:00p	16.0	29	Sat	-----	-----	12:21p	-0.4	29	Mon	6:08a	16.5	6:50p	16.7	29	Mon	12:10a	3.3	12:21p	1.2
30	Sun	6:36a	15.4	7:43p	15.4	30	Sun	12:44a	4.5	1:01p	1.1	30	Tue	6:50a	15.2	7:24p	16.0	30	Tue	12:51a	3.8	12:56p	2.7
												31	Wed	7:38a	13.9	8:02p	15.4	31	Wed	1:36a	4.4	1:34p	4.3

- continued -

Table 17. Seldovia District tide tables, April-September, 2002 (page 3 of 3).

August												September											
HIGH TIDES						LOW TIDES						HIGH TIDES						LOW TIDES					
Date	Day	A.M.	Time	Feet	P.M.	Date	Day	A.M.	Time	Feet	P.M.	Date	Day	A.M.	Time	Feet	P.M.	Date	Day	A.M.	Time	Feet	P.M.
1	Thu	8:37a	12.7	8:47p	14.9	1	Thu	2:29a	4.8	2:21p	5.8	1	Sun	10:46a	12.1	10:01p	14.3	1	Sun	3:53a	4.8	3:57p	8.6
2	Fri	9:52a	12	9:43p	14.7	2	Fri	3:34a	4.9	3:22p	7.0	2	Mon	12:14p	13.1	11:25p	15.1	2	Mon	5:21a	3.9	5:28p	8.0
3	Sat	11:19a	12.1	10:47p	14.9	3	Sat	4:49a	4.4	4:38p	7.5	3	Tue	-----	-----	1:10p	14.7	3	Tue	6:28a	2.3	6:35p	6.5
4	Sun	12:36p	13	11:52p	15.6	4	Sun	5:58a	3.2	5:52p	7.3	4	Wed	12:33a	16.7	1:52p	16.5	4	Wed	7:17a	0.3	7:27p	4.5
5	Mon	-----	-----	1:32p	14.3	5	Mon	6:54a	1.6	6:52p	6.3	5	Thu	1:28a	18.5	2:29p	18.3	5	Thu	8:00a	-1.5	8:12p	2.4
6	Tue	12:50a	16.9	2:17p	15.8	6	Tue	7:41a	-0.1	7:43p	5.0	6	Fri	2:17a	20.3	3:05p	20.0	6	Fri	8:41a	-2.9	8:56p	0.4
7	Wed	1:42a	18.3	2:56p	17.3	7	Wed	8:23a	-1.8	8:29p	3.6	7	Sat	3:03a	21.6	3:41p	21.3	7	Sat	9:21a	-3.6	9:38p	-1.2
8	Thu	2:30a	19.7	3:35p	18.6	8	Thu	9:04a	-3.1	9:13p	2.2	8	Sun	3:48a	22.2	4:18p	22.1	8	Sun	10:00a	-3.6	10:22p	-2.2
9	Fri	3:16a	20.8	4:12p	19.6	9	Fri	9:44a	-4.0	9:57p	1.0	9	Mon	4:34a	22.0	4:56p	22.2	9	Mon	10:41a	-2.8	11:06p	-2.5
10	Sat	4:01a	21.3	4:51p	20.3	10	Sat	10:25a	-4.2	10:41p	0.1	10	Tue	5:21a	21.0	5:35p	21.7	10	Tue	11:22a	-1.3	11:53p	-2.0
11	Sun	4:48a	21.1	5:30p	20.5	11	Sun	11:06a	-3.7	11:28p	-0.3	11	Wed	6:12a	19.3	6:17p	20.5	11	Wed	-----	-----	-----	-----
12	Mon	5:36a	20.2	6:11p	20.3	12	Mon	11:48a	-2.4	-----	-----	12	Thu	7:07a	17.3	7:04p	18.9	12	Thu	12:43a	-0.9	12:54p	3.0
13	Tue	6:27a	18.8	6:54p	19.7	13	Tue	12:16a	-0.2	12:33p	-0.6	13	Fri	8:14a	15.4	8:00p	17.1	13	Fri	1:41a	0.7	1:52p	5.2
14	Wed	7:24a	17	7:41p	18.7	14	Wed	1:10a	0.4	1:21p	1.6	14	Sat	9:41a	14.1	9:13p	15.6	14	Sat	2:54a	2.1	3:07p	6.9
15	Thu	8:31a	15.2	8:36p	17.6	15	Thu	2:10a	1.1	2:18p	3.7	15	Sun	11:21a	14.0	10:45p	15.0	15	Sun	4:26a	2.8	4:44p	7.3
16	Fri	9:53a	14	9:42p	16.7	16	Fri	3:22a	1.8	3:27p	5.5	16	Mon	-----	-----	12:39p	15.0	16	Mon	5:53a	2.4	6:09p	6.5
17	Sat	11:27a	13.8	10:58p	16.3	17	Sat	4:46a	1.8	4:49p	6.3	17	Tue	12:10a	15.5	1:31p	16.2	17	Tue	6:55a	1.6	7:07p	5.1
18	Sun	-----	-----	12:48p	14.7	18	Sun	6:05a	1.3	6:08p	6.1	18	Wed	1:10a	16.6	2:09p	17.3	18	Wed	7:40a	0.8	7:50p	3.7
19	Mon	12:13a	16.6	1:46p	15.8	19	Mon	7:07a	0.3	7:11p	5.2	19	Thu	1:54a	17.6	2:40p	18.2	19	Thu	8:15a	0.2	8:26p	2.5
20	Tue	1:14a	17.3	2:30p	16.9	20	Tue	7:56a	-0.5	8:00p	4.1	20	Fri	2:31a	18.5	3:06p	18.9	20	Fri	8:45a	-0.2	8:59p	1.4
21	Wed	2:03a	18.1	3:07p	17.8	21	Wed	8:36a	-1.2	8:42p	3.1	21	Sat	3:04a	19.1	3:31p	19.5	21	Sat	9:14a	-0.2	9:30p	0.7
22	Thu	2:44a	18.9	3:38p	18.4	22	Thu	9:11a	-1.5	9:19p	2.3	22	Sun	3:36a	19.5	3:56p	19.7	22	Sun	9:42a	0.1	10:00p	0.3
23	Fri	3:21a	19.3	4:08p	18.8	23	Fri	9:43a	-1.5	9:54p	1.8	23	Mon	4:09a	19.4	4:21p	19.7	23	Mon	10:10a	0.7	10:31p	0.2
24	Sat	3:56a	19.4	4:36p	19.0	24	Sat	10:13a	-1.2	10:28p	1.5	24	Tue	4:42a	18.9	4:47p	19.4	24	Tue	10:39a	1.6	11:02p	0.5
25	Sun	4:30a	19.2	5:03p	18.9	25	Sun	10:43a	-0.5	11:01p	1.6	25	Wed	5:16a	18.0	5:13p	18.7	25	Wed	11:08a	2.8	11:34p	1.2
26	Mon	5:05a	18.5	5:31p	18.5	26	Mon	11:12a	0.5	11:35p	1.9	26	Thu	5:53a	16.7	5:40p	17.8	26	Thu	11:39a	4.2	-----	-----
27	Tue	5:40a	17.5	5:58p	17.9	27	Tue	11:43a	1.8	-----	-----	27	Fri	6:34a	15.3	6:11p	16.7	27	Fri	12:09a	2.0	12:12p	5.7
28	Wed	6:18a	16.2	6:27p	17.1	28	Wed	12:09a	2.5	12:14p	3.4	28	Sat	7:25a	13.8	6:50p	15.5	28	Sat	12:50a	3.1	12:53p	7.2
29	Thu	7:01a	14.7	7:00p	16.2	29	Thu	12:47a	3.3	12:47p	5.0	29	Sun	8:38a	12.7	7:51p	14.4	29	Sun	1:45a	4.0	1:55p	8.4
30	Fri	7:54a	13.3	7:40p	15.2	30	Fri	1:31a	4.1	1:28p	6.6	30	Mon	10:17a	12.6	9:27p	14.0	30	Mon	3:07a	4.5	3:32p	8.9
31	Sat	9:08a	12.2	8:39p	14.5	31	Sat	2:30a	4.7	2:28p	7.9												

Appendix A.1. Upper Cook Inlet commercial chinook salmon harvest by gear type and area, 1966-2002.

Year	Central District		Central District Set Gillnet				Northern District		Total
	Drift Gillnet		East Side		Kalgin/West Side		Set Gillnet		
	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	
1966	392	4.6	7,329	85.8	401	4.7	422	4.9	8,544
1967	489	6.2	6,686	85.1	500	6.4	184	2.3	7,859
1968	182	4.0	3,304	72.8	579	12.8	471	10.4	4,536
1969	362	2.9	5,834	47.1	3,286	26.5	2,904	23.4	12,386
1970	356	4.3	5,368	64.4	1,152	13.8	1,460	17.5	8,336
1971	237	1.2	7,055	35.7	2,875	14.5	9,598	48.6	19,765
1972	375	2.3	8,599	53.5	2,199	13.7	4,913	30.5	16,086
1973	244	4.7	4,411	84.9	369	7.1	170	3.3	5,194
1974	422	6.4	5,571	84.5	434	6.6	169	2.6	6,596
1975	250	5.2	3,675	76.8	733	15.3	129	2.7	4,787
1976	690	6.4	8,249	75.9	1,469	13.5	457	4.2	10,865
1977	3,411	23.1	9,730	65.8	1,084	7.3	565	3.8	14,790
1978	2,072	12.0	12,468	72.1	2,093	12.1	666	3.8	17,299
1979	1,089	7.9	8,671	63.1	2,264	16.5	1,714	12.5	13,738
1980	889	6.4	9,643	69.9	2,273	16.5	993	7.2	13,798
1981	2,320	19.0	8,358	68.3	837	6.8	725	5.9	12,240
1982	1,293	6.2	13,658	65.4	3,203	15.3	2,716	13.0	20,870
1983	1,125	5.5	15,042	72.9	3,534	17.1	933	4.5	20,634
1984	1,377	13.7	6,165	61.3	1,516	15.1	1,004	10.0	10,062
1985	2,048	8.5	17,723	73.6	2,427	10.1	1,890	7.8	24,088
1986	1,834	4.7	19,810	50.5	2,108	5.4	15,488	39.5	39,240
1987	4,552	11.5	21,379	53.9	1,029	2.6	12,701	32.0	39,661
1988	2,217	7.6	12,870	44.3	1,137	3.9	12,836	44.2	29,060
1989			10,919	40.8	3,092	11.6	12,731	47.6	26,742
1990	621	3.9	4,139	25.7	1,763	10.9	9,582	59.5	16,105
1991	246	1.8	4,893	36.1	1,544	11.4	6,859	50.6	13,542
1992	615	3.6	10,718	62.4	1,284	7.5	4,554	26.5	17,171
1993	765	4.1	14,079	74.6	720	3.8	3,307	17.5	18,871
1994	464	2.3	15,562	78.0	730	3.7	3,185	16.0	19,941
1995	594	3.3	12,068	67.4	1,101	6.2	4,130	23.1	17,893
1996	389	2.7	11,564	80.8	395	2.8	1,958	13.7	14,306
1997	627	4.7	11,325	85.2	207	1.6	1,133	8.5	13,292
1998	335	4.1	5,087	62.6	155	1.9	2,547	31.4	8,124
1999	575	4.0	9,463	65.8	1,533	10.7	2,812	19.6	14,383
2000	270	3.7	3,684	50.1	1,089	14.8	2,307	31.4	7,350
2001	619	6.7	6,009	64.6	856	9.2	1,811	19.5	9,295
2002	415	3.3	9,478	74.5	926	7.3	1,895	14.9	12,714
1966-02 Avg <sup>a</sup>	966	6.2	9,435	65.4	1,383	9.9	3,311	18.5	15,095
1993-02 Avg	505	3.9	9,832	70.4	771	6.2	2,509	19.5	13,617

<sup>a</sup> 1989 not used in average as the drift fleet did not fish due to the Exxon Valdez oil spill and this had an effect on all other fisheries.

<sup>b</sup> Harvest data prior to 2002 reflect minor adjustments to historical catch database.

Appendix A.2. Upper Cook Inlet commercial sockeye salmon harvest by gear type and area,  
1966-2002.

Year	Central District		Central District Set Gillnet				Northern District		Total
	Drift Gillnet		East Side		Kalgin/West Side		Set Gillnet		
	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	
1966	1,103,261	59.6	485,330	26.2	132,443	7.2	131,080	7.1	1,852,114
1967	890,152	64.5	305,431	22.1	66,414	4.8	118,065	8.6	1,380,062
1968	561,737	50.8	317,535	28.7	85,049	7.7	140,575	12.7	1,104,896
1969	371,747	53.7	210,834	30.5	71,184	10.3	38,050	5.5	691,815
1970	460,690	62.9	142,701	19.5	62,723	8.6	66,458	9.1	732,572
1971	423,107	66.5	111,505	17.5	61,144	9.6	40,533	6.4	636,289
1972	506,281	57.5	204,599	23.3	83,176	9.5	85,755	9.7	879,811
1973	375,695	56.1	188,816	28.2	59,973	8.9	45,614	6.8	670,098
1974	265,771	53.5	136,889	27.5	52,962	10.7	41,563	8.4	497,185
1975	368,124	53.8	177,336	25.9	73,765	10.8	65,526	9.6	684,751
1976	1,055,786	63.4	476,376	28.6	62,338	3.7	69,649	4.2	1,664,149
1977	1,073,098	52.3	751,178	36.6	104,265	5.1	123,750	6.0	2,052,291
1978	1,803,479	68.8	660,797	25.2	105,767	4.0	51,378	2.0	2,621,421
1979	454,707	49.2	247,359	26.8	108,422	11.7	113,918	12.3	924,406
1980	770,247	48.9	559,812	35.6	137,882	8.8	105,647	6.7	1,573,588
1981	633,380	44.0	496,003	34.5	60,217	4.2	249,662	17.3	1,439,262
1982	2,103,429	64.5	971,423	29.8	66,952	2.1	118,060	3.6	3,259,864
1983	3,222,428	63.8	1,508,511	29.9	134,575	2.7	184,219	3.6	5,049,733
1984	1,235,337	58.6	490,273	23.3	162,139	7.7	218,965	10.4	2,106,714
1985	2,032,957	50.1	1,561,200	38.4	285,081	7.0	181,191	4.5	4,060,429
1986	2,834,534	59.2	1,657,904	34.6	153,714	3.2	141,830	3.0	4,787,982
1987	5,631,746	59.3	3,495,802	36.8	208,036	2.2	164,602	1.7	9,500,186
1988	4,129,878	60.4	2,428,597	35.5	146,154	2.1	129,713	1.9	6,834,342
1989			4,543,066	90.7	186,828	3.7	280,801	5.6	5,010,695
1990	2,305,331	64.0	1,117,581	31.0	84,949	2.4	96,398	2.7	3,604,259
1991	1,118,115	51.3	844,156	38.8	99,859	4.6	116,201	5.3	2,178,331
1992	6,069,495	66.6	2,838,076	31.2	131,304	1.4	69,478	0.8	9,108,353
1993	2,558,732	53.8	1,941,783	40.8	108,181	2.3	146,633	3.1	4,755,329
1994	1,901,452	53.3	1,458,162	40.9	85,830	2.4	120,142	3.4	3,565,586
1995	1,773,873	60.1	961,216	32.6	107,640	3.6	109,098	3.7	2,951,827
1996	2,205,067	56.7	1,483,008	38.1	96,719	2.5	104,128	2.7	3,888,922
1997	2,197,736	52.6	1,832,824	43.9	48,723	1.2	97,455	2.3	4,176,738
1998	599,202	49.1	512,225	42.0	47,165	3.9	60,650	5.0	1,219,242
1999	1,413,995	52.8	1,092,946	40.8	114,454	4.3	59,115	2.2	2,680,510
2000	656,427	49.6	529,747	40.1	92,477	7.0	43,831	3.3	1,322,482
2001	846,257	46.3	870,019	47.6	59,709	3.3	50,848	2.8	1,826,833
2002	1,367,251	49.3	1,303,158	47.0	69,609	2.5	33,100	1.2	2,773,118
1966-02 Avg <sup>a</sup>	1,592,236	56.3	954,753	33	100,861	5	103,691	6	2,751,541
1993-02 Avg	1,551,999	52.4	1,198,509	41.4	83,051	3.3	82,500	3.0	2,916,059

<sup>a</sup> 1989 not used in average as the drift fleet did not fish due to the Exxon Valdez oil spill and this had an effect on all other fisheries.

<sup>b</sup> Harvest data prior to 2002 reflect minor adjustments to historical catch database.



Appendix A.3. Upper Cook Inlet commercial coho salmon harvest by gear type and area, 1966-2002.

Year	Central District Drift Gillnet		Central District Set Gillnet				Northern District Set Gillnet		Total
	Number <sup>b</sup>	%	East Side		Kalgin/West Side		Number <sup>b</sup>	%	
			Number <sup>b</sup>	%	Number <sup>b</sup>	%			
1966	80,901	27.9	68,877	23.8	59,509	20.5	80,550	27.8	289,837
1967	53,071	29.9	40,738	22.9	40,066	22.5	43,854	24.7	177,729
1968	167,383	35.8	80,828	17.3	63,301	13.5	156,648	33.5	468,160
1969	33,053	32.8	18,988	18.9	28,231	28.0	20,412	20.3	100,684
1970	110,070	40.0	30,114	10.9	52,299	19.0	82,722	30.1	275,205
1971	35,491	35.4	16,589	16.5	26,188	26.1	22,094	22.0	100,362
1972	21,577	26.7	24,673	30.5	15,300	18.9	19,346	23.9	80,896
1973	31,784	30.4	23,901	22.9	24,784	23.7	23,951	22.9	104,420
1974	75,640	37.8	36,837	18.4	40,610	20.3	47,038	23.5	200,125
1975	88,579	39.0	46,209	20.3	59,537	26.2	33,051	14.5	227,376
1976	80,712	38.7	47,873	22.9	42,243	20.2	37,835	18.1	208,663
1977	110,184	57.2	23,693	12.3	38,093	19.8	20,623	10.7	192,593
1978	76,259	34.8	34,134	15.6	61,711	28.2	47,089	21.5	219,193
1979	114,496	43.2	29,284	11.0	68,306	25.8	53,078	20.0	265,164
1980	89,510	33.0	40,281	14.8	51,527	19.0	90,098	33.2	271,416
1981	226,366	46.7	36,024	7.4	88,390	18.2	133,625	27.6	484,405
1982	416,274	52.5	108,393	13.7	182,205	23.0	85,352	10.8	792,224
1983	326,965	63.3	37,694	7.3	97,796	18.9	53,867	10.4	516,322
1984	213,423	47.4	37,166	8.3	84,618	18.8	114,786	25.5	449,993
1985	357,388	53.6	70,657	10.6	147,331	22.1	91,837	13.8	667,213
1986	506,405	66.9	76,385	10.1	85,932	11.4	88,108	11.6	756,830
1987	202,306	44.8	74,977	16.6	74,930	16.6	98,920	21.9	451,133
1988	277,703	49.6	55,419	9.9	77,058	13.8	149,742	26.7	559,922
1989	743	0.2	81,744	24.1	81,004	23.9	175,710	51.8	339,201
1990	247,357	49.3	40,351	8.0	73,429	14.6	140,506	28.0	501,643
1991	175,782	41.2	30,435	7.1	87,968	20.6	132,302	31.0	426,487
1992	267,300	57.0	57,078	12.2	53,419	11.4	91,133	19.4	468,930
1993	121,829	39.7	43,098	14.0	35,661	11.6	106,294	34.6	306,882
1994	310,114	52.7	68,449	11.9	61,166	10.5	144,064	24.8	583,793
1995	241,473	54.0	44,750	10.0	71,431	16.0	89,300	20.0	446,954
1996	171,434	53.3	40,724	12.6	31,405	9.8	78,105	24.3	321,668
1997	78,662	51.6	19,668	12.9	16,705	11.0	37,369	24.5	152,404
1998	83,338	51.9	18,677	11.6	24,286	15.1	34,359	21.4	160,660
1999	64,814	51.5	11,923	9.3	17,725	14.1	31,446	25.1	125,908
2000	131,478	55.5	11,078	4.7	22,840	9.6	71,475	30.2	236,871
2001	39,418	34.8	4,246	3.7	23,719	20.9	45,928	40.5	113,311
2002	125,831	51.1	35,153	14.3	35,005	14.2	50,292	20.4	246,281
1966-02 Avg <sup>a</sup>	159,844	44.8	41,260	13.8	57,353	18.2	73,533	23.3	331,990
1993-02 Avg	136,839	49.6	29,777	10.5	33,994	13.3	68,863	26.6	269,473

<sup>a</sup> 1989 not used in average as the drift fleet did not fish due to the Exxon Valdez oil spill and this had an effect on all other fisheries.

<sup>b</sup> Harvest data prior to 2002 reflect minor adjustments to historical catch database.

Appendix A.4. Upper Cook Inlet commercial pink salmon harvest by gear type and area, 1966-2002.

Year	Central District		Central District Set Gillnet				Northern District		Total
	Drift Gillnet		East Side		Kalgin/West Side		Set Gillnet		
	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	Number <sup>b</sup>	%	
1966	593,654	29.6	969,624	48.3	70,507	3.5	371,960	18.5	2,005,745
1967	7,475	23.2	13,038	40.5	3,256	10.1	8,460	26.2	32,229
1968	880,512	38.7	785,887	34.5	75,755	3.3	534,839	23.5	2,276,993
1969	8,233	25.3	10,968	33.7	5,711	17.6	7,587	23.3	32,499
1970	334,737	41.1	281,067	34.5	24,763	3.0	174,193	21.4	814,760
1971	6,433	18.1	18,097	50.8	2,637	7.4	8,423	23.7	35,590
1972	115,117	18.3	403,706	64.2	18,913	3.0	90,830	14.5	628,566
1973	91,901	28.2	80,596	24.7	16,437	5.0	137,250	42.1	326,184
1974	140,432	29.0	291,408	60.2	9,014	1.9	42,876	8.9	483,730
1975	113,868	33.9	112,423	33.4	19,086	5.7	90,953	27.0	336,330
1976	599,594	47.7	479,024	38.1	30,030	2.4	148,080	11.8	1,256,728
1977	286,308	51.7	125,817	22.7	25,212	4.6	116,518	21.0	553,855
1978	934,442	55.3	372,601	22.1	54,785	3.2	326,614	19.3	1,688,442
1979	19,554	26.8	19,983	27.4	7,061	9.7	26,382	36.1	72,980
1980	964,526	54.0	299,444	16.8	47,963	2.7	474,488	26.6	1,786,421
1981	53,888	42.4	15,654	12.3	4,276	3.4	53,325	41.9	127,143
1982	270,380	34.2	432,715	54.7	14,242	1.8	73,307	9.3	790,644
1983	26,629	37.9	18,309	26.0	3,785	5.4	21,604	30.7	70,327
1984	273,565	44.3	220,895	35.8	16,708	2.7	106,284	17.2	617,452
1985	34,228	39.0	17,715	20.2	5,653	6.4	30,232	34.4	87,828
1986	614,453	47.3	530,445	40.8	15,460	1.2	139,002	10.7	1,299,360
1987	38,660	35.2	47,707	43.4	5,229	4.8	18,205	16.6	109,801
1988	226,776	48.3	179,092	38.1	9,890	2.1	54,210	11.5	469,968
1989	1	0.0	37,971	56.3	5,580	8.3	23,878	35.4	67,430
1990	323,759	53.7	225,429	37.4	10,302	1.7	43,944	7.3	603,434
1991	5,791	39.5	2,670	18.2	1,049	7.2	5,153	35.1	14,663
1992	423,738	60.9	244,068	35.1	4,250	0.6	23,805	3.4	695,861
1993	46,463	46.0	41,690	41.3	2,313	2.3	10,468	10.4	100,934
1994	256,248	49.0	234,827	44.9	3,178	0.6	29,181	5.6	523,434
1995	64,632	48.4	53,420	40.0	3,810	2.9	11,713	8.8	133,575
1996	122,728	50.5	95,717	39.4	3,792	1.6	20,674	8.5	242,911
1997	29,917	42.2	32,046	45.2	4,701	6.6	4,269	6.0	70,933
1998	200,382	36.3	332,092	60.2	7,231	1.3	11,555	2.1	551,260
1999	3,552	22.0	9,355	57.8	2,674	16.5	593	3.7	16,174
2000	90,508	61.8	23,746	16.2	11,983	8.2	20,245	13.8	146,482
2001	31,218	43.0	32,998	45.5	3,988	5.5	4,355	6.0	72,559
2002	224,229	50.2	214,771	48.1	1,736	0.4	6,224	1.4	446,960
1966-02 Avg <sup>a</sup>	234,959	40.4	201,918	37.6	15,205	4.6	90,217	17.5	542,299
1993-02 Avg	106,988	44.9	107,066	43.9	4,541	4.6	11,928	6.6	230,522

<sup>a</sup> 1989 not used in average as the drift fleet did not fish due to the Exxon Valdez oil spill and this had an effect on all other fisheries.

<sup>b</sup> Harvest data prior to 2002 reflect minor adjustments to historical catch database.

Appendix A.5. Upper Cook Inlet commercial chum salmon harvest by gear type and area, 1966-2002.

Year	Central District Drift Gillnet		Central District Set Gillnet				Northern District Set Gillnet		Total
	Number <sup>b</sup>	%	East Side		Kalgin/West Side		Number <sup>b</sup>	%	
			Number <sup>b</sup>	%	Number <sup>b</sup>	%			
1966	424,972	79.8	7,461	1.4	64,725	12.1	35,598	6.7	532,756
1967	233,041	78.5	399	0.1	25,013	8.4	38,384	12.9	296,837
1968	1,002,900	90.5	1,563	0.1	44,986	4.1	58,454	5.3	1,107,903
1969	238,497	89.1	399	0.1	16,954	6.3	11,836	4.4	267,686
1970	678,448	90.4	1,228	0.2	48,591	6.5	22,507	3.0	750,774
1971	274,567	84.8	128	0.0	32,647	10.1	16,603	5.1	323,945
1972	564,726	90.2	1,727	0.3	40,179	6.4	19,782	3.2	626,414
1973	605,738	90.7	1,965	0.3	29,019	4.3	30,851	4.6	667,573
1974	344,496	86.8	506	0.1	15,346	3.9	36,492	9.2	396,840
1975	886,474	93.2	980	0.1	33,347	3.5	30,787	3.2	951,588
1976	405,769	86.5	1,484	0.3	47,882	10.2	14,045	3.0	469,180
1977	1,153,454	93.5	1,413	0.1	54,708	4.4	23,861	1.9	1,233,436
1978	489,119	85.5	4,563	0.8	40,946	7.2	37,151	6.5	571,779
1979	609,239	93.8	867	0.1	30,342	4.7	9,310	1.4	649,758
1980	339,970	87.7	2,147	0.6	28,970	7.5	16,728	4.3	387,815
1981	756,922	91.0	2,386	0.3	26,461	3.2	46,208	5.6	831,977
1982	1,348,510	94.1	4,777	0.3	36,647	2.6	43,006	3.0	1,432,940
1983	1,044,636	93.7	2,822	0.3	38,079	3.4	29,321	2.6	1,114,858
1984	568,097	83.5	3,695	0.5	34,207	5.0	74,727	11.0	680,726
1985	700,848	90.7	4,133	0.5	31,746	4.1	36,122	4.7	772,849
1986	1,012,028	89.2	7,027	0.6	39,078	3.4	76,040	6.7	1,134,173
1987	211,580	60.6	16,608	4.8	53,558	15.3	67,180	19.3	348,926
1988	580,650	81.9	11,841	1.7	40,354	5.7	75,728	10.7	708,573
1989	72	0.1	12,302	10.1	27,705	22.7	81,948	67.2	122,027
1990	289,447	82.4	4,611	1.3	21,355	6.1	35,710	10.2	351,123
1991	215,469	76.9	2,387	0.9	22,974	8.2	39,393	14.1	280,223
1992	232,955	84.9	2,867	1.0	13,180	4.8	25,301	9.2	274,303
1993	88,826	72.4	2,977	2.4	5,566	4.5	25,401	20.7	122,770
1994	249,748	82.4	2,927	1.0	10,443	3.4	40,059	13.2	303,177
1995	468,224	88.4	3,711	0.7	13,820	2.6	43,667	8.2	529,422
1996	140,968	90.1	1,448	0.9	2,314	1.5	11,771	7.5	156,501
1997	92,163	89.4	1,222	1.2	1,770	1.7	7,881	7.6	103,036
1998	88,036	92.0	688	0.7	2,953	3.1	3,977	4.2	95,654
1999	166,612	95.5	373	0.2	3,567	2.0	3,989	2.3	174,541
2000	118,074	92.9	325	0.3	4,386	3.5	4,284	3.4	127,069
2001	75,599	89.5	248	0.3	6,445	7.6	2,202	2.6	84,494
2002	224,587	94.4	1,790	0.8	6,671	2.8	4,901	2.1	237,949
1966-02 Avg <sup>a</sup>	470,150	87.1	2,936	0.7	26,923	5.4	30,535	6.8	530,544
1993-02 Avg	171,284	88.7	1,571	0.8	5,794	3.3	14,813	7.2	193,461

<sup>a</sup> 1989 not used in average as the drift fleet did not fish due to the Exxon Valdez oil spill and this had an effect on all other fisheries.

<sup>b</sup> Harvest data prior to 2002 reflect minor adjustments to historical catch database.

# Appendix A.6. Upper Cook Inlet commercial salmon harvest by species, 1954-2002.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1954	63,780	1,207,046	321,525	2,189,207	510,068	4,291,626
1955	45,926	1,027,528	170,777	101,680	248,343	1,594,254
1956	64,977	1,258,789	198,189	1,595,375	782,051	3,899,381
1957	42,158	643,712	125,434	21,228	1,001,470	1,834,002
1958	22,727	477,392	239,765	1,648,548	471,697	2,860,129
1959	32,651	612,676	106,312	12,527	300,319	1,064,485
1960	27,512	923,314	311,461	1,411,605	659,997	3,333,889
1961	19,737	1,162,303	117,778	34,017	349,628	1,683,463
1962	20,210	1,147,573	350,324	2,711,689	970,582	5,200,378
1963	17,536	942,980	197,140	30,436	387,027	1,575,119
1964	4,531	970,055	452,654	3,231,961	1,079,084	5,738,285
1965	9,741	1,412,350	153,619	23,963	316,444	1,916,117
1966	8,544	1,852,114	289,837	2,005,745	532,756	4,688,996
1967	7,859	1,380,062	177,729	32,229	296,837	1,894,716
1968	4,536	1,104,896	468,160	2,276,993	1,107,903	4,962,488
1969	12,386	691,815	100,684	32,499	267,686	1,105,070
1970	8,336	732,572	275,205	814,760	750,774	2,581,647
1971	19,765	636,289	100,362	35,590	323,945	1,115,951
1972	16,086	879,811	80,896	628,566	626,414	2,231,773
1973	5,194	670,098	104,420	326,184	667,573	1,773,469
1974	6,596	497,185	200,125	483,730	396,840	1,584,476
1975	4,787	684,751	227,376	336,330	951,588	2,204,832
1976	10,865	1,664,149	208,663	1,256,728	469,180	3,609,585
1977	14,790	2,052,291	192,593	553,855	1,233,436	4,046,965
1978	17,299	2,621,421	219,193	1,688,442	571,779	5,118,134
1979	13,738	924,406	265,164	72,980	649,758	1,926,046
1980	13,798	1,573,588	271,416	1,786,421	387,815	4,033,038
1981	12,240	1,439,262	484,405	127,143	831,977	2,895,027
1982	20,870	3,259,864	792,224	790,644	1,432,940	6,296,542
1983	20,634	5,049,733	516,322	70,327	1,114,858	6,771,874
1984	10,062	2,106,714	449,993	617,452	680,726	3,864,947
1985	24,088	4,060,429	667,213	87,828	772,849	5,612,407
1986	39,242	4,788,492	756,864	1,299,379	1,134,173	8,018,150
1987	39,661	9,500,186	451,133	109,801	348,926	10,449,707
1988	29,060	6,834,342	559,922	469,968	708,573	8,601,865
1989	26,742	5,010,698	339,201	67,430	122,027	5,566,098
1990	16,105	3,604,259	501,643	603,434	351,123	5,076,564
1991	13,542	2,178,331	426,487	14,663	280,223	2,913,246
1992	17,171	9,108,353	468,930	695,861	274,303	10,564,618
1993	18,871	4,755,329	306,882	100,934	122,770	5,304,786
1994	19,941	3,565,586	583,793	523,434	303,177	4,995,931
1995	17,893	2,951,827	446,954	133,575	529,422	4,079,671
1996	14,306	3,888,922	321,668	242,911	156,501	4,624,308
1997	13,292	4,176,738	152,404	70,933	103,036	4,516,403
1998	8,124	1,219,242	160,660	551,260	95,654	2,034,940
1999	14,383	2,680,510	125,908	16,174	174,541	3,011,516
2000	7,350	1,322,482	236,871	146,482	127,069	1,840,254
2001	9,295	1,826,833	113,311	72,559	84,494	2,106,492
2002	12,714	2,773,118	246,281	446,960	237,949	3,717,022
<b>Averages</b>						
48 Year	19,217	2,364,335	306,854	665,356	536,700	3,892,463
Last 10 Yr	13,617	2,916,059	269,473	230,522	193,461	3,623,132

Appendix A. 7. Approximate exvessel value of Upper Cook Inlet commercial salmon harvest by species, 1960-2002.

Year	Chinook	%	Sockeye	%	Coho	%	Pink	%	Chum	%	Total
1960	\$ 140,000	5.0%	\$ 1,334,000	47.9%	\$ 307,000	11.0%	\$ 663,000	23.8%	\$ 343,000	12.3%	\$ 2,787,000
1961	\$ 100,000	4.7%	\$ 1,687,000	79.4%	\$ 118,000	5.6%	\$ 16,000	0.8%	\$ 204,000	9.6%	\$ 2,125,000
1962	\$ 100,000	2.5%	\$ 1,683,000	42.3%	\$ 342,000	8.6%	\$ 1,274,000	32.0%	\$ 582,000	14.6%	\$ 3,981,000
1963	\$ 89,000	4.6%	\$ 1,388,000	72.3%	\$ 193,000	10.1%	\$ 13,000	0.7%	\$ 236,000	12.3%	\$ 1,919,000
1964	\$ 20,000	0.5%	\$ 1,430,000	38.9%	\$ 451,000	12.3%	\$ 1,131,000	30.8%	\$ 646,000	17.6%	\$ 3,678,000
1965	\$ 50,000	2.0%	\$ 2,099,000	82.1%	\$ 109,000	4.3%	\$ 70,000	2.7%	\$ 230,000	9.0%	\$ 2,558,000
1966	\$ 50,000	1.2%	\$ 2,727,000	64.4%	\$ 295,000	7.0%	\$ 823,000	19.4%	\$ 338,000	8.0%	\$ 4,233,000
1967	\$ 49,000	1.9%	\$ 2,135,000	82.6%	\$ 187,000	7.2%	\$ 13,000	0.5%	\$ 202,000	7.8%	\$ 2,586,000
1968	\$ 30,000	0.7%	\$ 1,758,000	40.4%	\$ 515,000	11.8%	\$ 1,209,000	27.8%	\$ 843,000	19.4%	\$ 4,355,000
1969	\$ 70,000	4.0%	\$ 1,296,697	73.9%	\$ 134,003	7.6%	\$ 18,291	1.0%	\$ 236,404	13.5%	\$ 1,755,394
1970	\$ 89,382	3.0%	\$ 1,190,303	39.9%	\$ 468,179	15.7%	\$ 456,354	15.3%	\$ 780,622	26.2%	\$ 2,984,840
1971	\$ 189,504	9.2%	\$ 1,250,771	61.0%	\$ 137,815	6.7%	\$ 18,402	0.9%	\$ 454,483	22.2%	\$ 2,050,974
1972	\$ 224,396	6.3%	\$ 1,863,177	52.6%	\$ 137,315	3.9%	\$ 478,246	13.5%	\$ 840,057	23.7%	\$ 3,543,192
1973	\$ 121,156	2.0%	\$ 3,225,847	52.3%	\$ 318,950	5.2%	\$ 362,658	5.9%	\$ 2,135,025	34.6%	\$ 6,163,635
1974	\$ 209,712	3.2%	\$ 3,072,221	46.8%	\$ 843,048	12.8%	\$ 919,916	14.0%	\$ 1,517,637	23.1%	\$ 6,562,535
1975	\$ 63,990	1.0%	\$ 2,628,036	39.2%	\$ 838,859	12.5%	\$ 419,173	6.3%	\$ 2,752,555	41.1%	\$ 6,702,612
1976	\$ 274,172	2.0%	\$ 8,668,095	63.4%	\$ 819,006	6.0%	\$ 1,874,915	13.7%	\$ 2,041,225	14.9%	\$ 13,677,413
1977	\$ 523,776	2.4%	\$ 13,318,720	61.8%	\$ 932,540	4.3%	\$ 767,273	3.6%	\$ 5,995,611	27.8%	\$ 21,537,920
1978	\$ 661,375	2.0%	\$ 26,167,741	80.3%	\$ 1,380,312	4.2%	\$ 2,154,176	6.6%	\$ 2,217,510	6.8%	\$ 32,581,114
1979	\$ 616,360	4.2%	\$ 8,093,280	55.3%	\$ 1,640,277	11.2%	\$ 82,339	0.6%	\$ 4,199,765	28.7%	\$ 14,632,021
1980	\$ 414,771	3.2%	\$ 7,937,699	61.7%	\$ 891,098	6.9%	\$ 2,114,283	16.4%	\$ 1,513,960	11.8%	\$ 12,871,810
1981	\$ 424,390	2.3%	\$ 11,080,411	60.1%	\$ 2,623,598	14.2%	\$ 170,038	0.9%	\$ 4,150,158	22.5%	\$ 18,448,596
1982	\$ 763,267	2.4%	\$ 25,154,115	80.0%	\$ 4,080,570	13.0%	\$ 553,635	1.8%	\$ 886,129	2.8%	\$ 31,437,716
1983	\$ 590,730	2.0%	\$ 24,016,294	81.8%	\$ 1,601,976	5.5%	\$ 41,338	0.1%	\$ 3,109,814	10.6%	\$ 29,360,152
1984	\$ 310,899	1.8%	\$ 12,450,532	71.8%	\$ 2,039,681	11.8%	\$ 522,795	3.0%	\$ 2,011,253	11.6%	\$ 17,335,160
1985	\$ 799,318	2.3%	\$ 27,497,929	80.0%	\$ 3,359,824	9.8%	\$ 57,412	0.2%	\$ 2,644,995	7.7%	\$ 34,359,478
1986	\$ 915,189	2.0%	\$ 38,683,950	83.3%	\$ 2,909,043	6.3%	\$ 724,367	1.6%	\$ 3,197,973	6.9%	\$ 46,430,522
1987	\$ 1,609,777	1.6%	\$ 95,915,522	94.9%	\$ 2,373,254	2.3%	\$ 84,439	0.1%	\$ 1,116,165	1.1%	\$ 101,099,156
1988	\$ 1,120,885	0.9%	\$ 111,537,736	91.3%	\$ 4,738,463	3.9%	\$ 650,931	0.5%	\$ 4,129,002	3.4%	\$ 122,177,017
1989	\$ 803,494	1.4%	\$ 56,194,753	95.0%	\$ 1,674,393	2.8%	\$ 86,012	0.1%	\$ 415,535	0.7%	\$ 59,174,188
1990	\$ 436,822	1.1%	\$ 35,804,485	88.0%	\$ 2,422,214	6.0%	\$ 512,591	1.3%	\$ 1,495,827	3.7%	\$ 40,671,938
1991	\$ 348,522	2.3%	\$ 12,249,200	80.4%	\$ 1,996,049	13.1%	\$ 5,478	0.0%	\$ 643,400	4.2%	\$ 15,242,649
1992	\$ 634,466	0.6%	\$ 96,026,864	96.0%	\$ 2,261,862	2.3%	\$ 404,772	0.4%	\$ 740,294	0.7%	\$ 100,068,258
1993	\$ 617,092	2.1%	\$ 27,969,409	93.1%	\$ 1,081,175	3.6%	\$ 36,935	0.1%	\$ 322,205	1.1%	\$ 30,026,815
1994	\$ 642,291	1.9%	\$ 29,441,442	85.5%	\$ 3,297,865	9.6%	\$ 240,545	0.7%	\$ 831,121	2.4%	\$ 34,453,264
1995	\$ 474,475	2.2%	\$ 19,168,077	87.1%	\$ 1,295,353	5.9%	\$ 53,114	0.2%	\$ 1,023,926	4.7%	\$ 22,014,944
1996	\$ 402,980	1.4%	\$ 28,238,578	95.0%	\$ 800,423	2.7%	\$ 44,386	0.1%	\$ 225,751	0.8%	\$ 29,712,117
1997	\$ 365,316	1.1%	\$ 31,439,536	97.1%	\$ 434,327	1.3%	\$ 12,004	0.0%	\$ 143,244	0.4%	\$ 32,394,427
1998	\$ 181,318	2.1%	\$ 7,686,993	88.5%	\$ 497,050	5.7%	\$ 187,759	2.2%	\$ 132,025	1.5%	\$ 8,685,145
1999	\$ 337,482	1.6%	\$ 20,095,838	95.5%	\$ 329,164	1.6%	\$ 5,995	0.0%	\$ 265,026	1.3%	\$ 21,033,505
2000	\$ 183,044	2.2%	\$ 7,115,614	87.2%	\$ 626,287	7.7%	\$ 47,065	0.6%	\$ 186,385	2.3%	\$ 8,158,395
2001	\$ 169,593	2.2%	\$ 7,135,690	92.3%	\$ 297,387	3.8%	\$ 20,312	0.3%	\$ 111,028	1.4%	\$ 7,734,010
2002	\$ 326,051	2.8%	\$ 10,682,051	91.7%	\$ 329,031	2.8%	\$ 84,922	0.7%	\$ 224,148	1.9%	\$ 11,646,203

Appendix A.8. Commercial herring harvest by fishery, Upper Cook Inlet, 1973-2002.

Harvest (Tons)				
Year	Eastside	Chinitna Bay	Tuxedni Bay	Total
1973	13.8	-	-	13.8
1974	36.7	-	-	36.7
1975	6.2	-	-	6.2
1976	5.8	-	-	5.8
1977	17.3	-	-	17.3
1978	8.3	55.3	-	63.6
1979	67.3	96.2	24.8	188.3
1980	37.4	20	86.5	143.9
1981	86.2	50.5	84.9	221.6
1982	60.2	91.8	50.2	202.2
1983	165.3	49.2	238.2	452.7
1984	117.5	90.6	159	367.1
1985	121.7	47.4	220.5	389.6
1986	178.9	111.1	191.9	481.9
1987	130.5	65.1	152.5	348.1
1988	50.7	23.4	14.1	88.2
1989	55.2	122.3	34.3	211.8
1990	55.4	55.9	16.1	127.4
1991	13.4	15.7	1.6	30.7
1992	24.7	10.4	-	35.1
1993	-	-	-	-
1994	-	-	-	-
1995	-	-	-	-
1996	-	-	-	-
1997	-	-	-	-
1998	19.5	-	-	19.5
1999	10.4	-	-	10.4
2000	14.7	-	-	14.7
2001	9.9	-	-	9.9
2002	16.2	1.9	0	18.1

Appendix A.9. Commercial harvest of razor clams in Cook Inlet, 1919-2002.

Year	Pounds	Year	Pounds
1919	76,963	1961	277,830
1920	11,952	1962	195,650
1921	72,000	1963	0
1922	510,432	1964	0
1923	470,280	1965	0
1924	156,768	1966	0
1925	0	1967	0
1926	0	1968	0
1927	25,248	1969	0
1928	0	1970	0
1929	0	1971	14,755
1930	0	1972	31,360
1931	No Record	1973	34,415
1932	93,840	1974	0
1933	No Record	1975	10,020
1934	No Record	1976	0
1935	No Record	1977	1,762
1936	No Record	1978	45,931
1937	8,328	1979	144,358
1938	No Record	1980	140,420
1939	No Record	1981	441,949
1940	No Record	1982	460,639
1941	0	1983	269,618
1942	0	1984	261,742
1943	0	1985	319,034
1944	0	1986	258,632
1945	15,000	1987	312,349
1946	11,424	1988	392,610
1947	11,976	1989	222,747
1948	2,160	1990	323,602
1949	9,672	1991	201,320
1950	304,073	1992	296,727
1951	112,320	1993	310,289
1952	0	1994	355,165
1953	0	1995	248,358
1954	0	1996	355,448
1955	0	1997	366,532
1956	0	1998	371,877
1957	0	1999	352,910
1958	0	2000	369,397
1959	0	2001	345,546
1960	372,872	2002	338,940

## Appendix A.10. Enumeration goals and counts of sockeye salmon in selected Streams of Upper Cook Inlet, 1978-2002.

Year	Kenai River		Kasilof River		Fish Creek	
	Enumeration Goal	Enumeration Estimate <sup>a,f</sup>	Enumeration Goal	Enumeration Estimate <sup>a,f</sup>	Enumeration Goal	Enumeration Estimate <sup>b</sup>
1978	350,000-500,000	398,900	75,000-150,000	116,600	0	3,555
1979	350,000-500,000	285,020	75,000-150,000	152,179	0	68,739
1980	350,000-500,000	464,038	75,000-150,000	184,260	0	62,828
1981	350,000-500,000	407,639	75,000-150,000	256,625	0	50,479
1982	350,000-500,000	619,831	75,000-150,000	180,239	50,000	28,164
1983	350,000-500,000	630,340	75,000-150,000	210,271	50,000	118,797
1984	350,000-500,000	344,571	75,000-150,000	231,685	50,000	192,352
1985	350,000-500,000	502,820	75,000-150,000	505,049 <sup>g</sup>	50,000	68,577
1986	350,000-500,000	501,157	75,000-150,000	275,963	50,000	29,800
1987	400,000-700,000	1,596,871	150,000-250,000	249,250	50,000	91,215
1988	400,000-700,000	1,021,469	150,000-250,000	204,000 <sup>d</sup>	50,000	71,603
1989	400,000-700,000	1,599,959	150,000-250,000	158,206	50,000	67,224
1990	400,000-700,000	659,520	150,000-250,000	144,289	50,000	50,000
1991	400,000-700,000	647,597	150,000-250,000	238,269	50,000	50,500
1992	400,000-700,000	994,798	150,000-250,000	184,178	50,000	71,385
1993	400,000-700,000	813,617	150,000-250,000	149,939	50,000	117,619
1994	400,000-700,000	1,003,446	150,000-250,000	205,117	50,000	95,107
1995	450,000-700,000	630,447	150,000-250,000	204,935	50,000	115,000
1996	550,000-800,000	797,847	150,000-250,000	249,944	50,000	63,160
1997	550,000-825,000	1,064,818	150,000-250,000	266,025	50,000	54,656
1998	550,000-850,000	767,558	150,000-250,000	273,213	50,000	22,853
1999	600,000-1,100,000	803,379	150,000-250,000	312,587	50,000	26,667
2000	600,000-1,100,000	624,578	150,000-250,000	256,053	50,000	19,533
2001	600,000-1,100,000	650,036	150,000-250,000	307,570	50,000	43,469
2002	600,000-1,100,000	957,924	150,000-250,000	226,682	20,000 - 70,000	90,483

Year	Yentna River		Crescent River		Packers Creek	
	Enumeration Goal <sup>e</sup>	Enumeration Estimate <sup>a,f</sup>	Enumeration Goal	Enumeration Estimate <sup>a,f</sup>	Enumeration Goal	Enumeration Estimate <sup>b</sup>
1978	100,000		0	N/C	0	N/C
1979	100,000		50,000	86,654	0	N/C
1980	100,000		50,000	90,863	0	16,477
1981	100,000	139,401	50,000	41,213	0	13,024
1982	100,000	113,847	50,000	58,957	0	15,687
1983	100,000	104,414	50,000	92,122	0	18,403
1984	100,000	149,375	50,000	118,345	0	30,684
1985	100,000	107,124	50,000	128,628	0	36,850
1986	100,000-150,000	92,076	50,000	20,385 <sup>e</sup>	0	29,604
1987	100,000-150,000	66,054	50,000-100,000	120,219	0	35,401
1988	100,000-150,000	52,330	50,000-100,000	57,716	15,000-25,000	18,607
1989	100,000-150,000	96,269	50,000-100,000	71,064	15,000-25,000	22,304
1990	100,000-150,000	140,290	50,000-100,000	52,238	15,000-25,000	31,868
1991	100,000-150,000	109,632	50,000-100,000	44,578	15,000-25,000	41,275
1992	100,000-150,000	66,054	50,000-100,000	58,229	15,000-25,000	28,361
1993	100,000-150,000	141,694	50,000-100,000	37,556	15,000-25,000	40,869
1994	100,000-150,000	128,032	50,000-100,000	30,355	15,000-25,000	30,788
1995	100,000-150,000	121,479	50,000-100,000	52,311	15,000-25,000	29,473
1996	100,000-150,000	90,781	50,000-100,000	28,729	15,000-25,000	19,095
1997	100,000-150,000	157,822	50,000-100,000	70,768	15,000-25,000	33,846
1998	100,000-150,000	119,623	50,000-100,000	62,257	15,000-25,000	17,732
1999	100,000-150,000	99,029	25,000-50,000	66,519	15,000-25,000	25,648
2000	100,000-150,000	133,094	25,000-50,000	56,599	15,000-25,000	20,151
2001	100,000-150,000	83,532	25,000-50,000	78,081	15,000-25,000	no count
2002	90,000-160,000	78,591	25,000-50,000	62,833	15,000-25,000	no count

<sup>a</sup> Derived from sonar counters unless otherwise noted.

<sup>b</sup> Weir Counts.

<sup>c</sup> Yentna River escapement goal only.

<sup>d</sup> Combined counts from weirs on Bear and Glacier Flat Creeks and surveys of remaining spawning streams; sonar count was 151,856.

<sup>e</sup> Counts through 16 July only.

<sup>f</sup> Enumeration estimates prior to 2002 reflect minor adjustments to the escapement database.



Appendix A.11. Average price<sup>a</sup> paid for commercially harvested salmon,  
Upper Cook Inlet, 1969-2002.

Year	Chinook	Sockeye	Coho	Pink	Chum
1969	0.38	0.28	0.19	0.14	0.12
1970	0.40	0.28	0.25	0.14	0.14
1971	0.37	0.30	0.21	0.15	0.15
1972	0.47	0.34	0.27	0.19	0.20
1973	0.62	0.65	0.50	0.30	0.42
1974	0.88	0.91	0.66	0.46	0.53
1975	0.54	0.63	0.54	0.35	0.41
1976	0.92	0.76	0.61	0.37	0.54
1977	1.26	0.86	0.72	0.38	0.61
1978	1.16	1.32	0.99	0.34	0.51
1979	1.63	1.41	0.98	0.34	0.88
1980	1.15	0.85	0.57	0.34	0.53
1981	1.46	1.20	0.83	0.38	0.65
1982	1.27	1.10	0.72	0.18	0.49
1983	0.97	0.74	0.45	0.18	0.36
1984	1.08	1.00	0.64	0.21	0.39
1985	1.20	1.20	0.70	0.20	0.45
1986	0.90	1.40	0.60	0.15	0.38
1987	1.40	1.50	0.80	0.22	0.45
1988	1.30	2.47	1.20	0.37	0.76
1989	1.25	1.70	0.75	0.40	0.47
1990	1.20	1.55	0.75	0.25	0.60
1991	1.20	1.00	0.77	0.12	0.35
1992	1.50	1.60	0.75	0.15	0.40
1993	1.20	1.00	0.60	0.12	0.45
1994	1.00	1.45	0.80	0.12	0.40
1995	1.00	1.15	0.45	0.12	0.27
1996	1.00	1.15	0.40	0.05	0.19
1997	1.00	1.15	0.45	0.05	0.19
1998	1.00	1.15	0.45	0.09	0.19
1999	1.00	1.30	0.45	0.12	0.19
2000	1.10	0.85	0.40	0.09	0.19
2001	1.00	0.65	0.40	0.08	0.19
2002	1.15	0.60	0.20	0.05	0.12

<sup>a</sup> Price is expressed as dollars per pound.

Data Source: 1969-1983- Commercial Fisheries Entry Commission.

1984-2002 Random fish ticket averages, does not include bonuses  
or post season adjustments.

Appendix A.12. Average weight<sup>a</sup> (in pounds) of commercially harvested salmon, Upper Cook Inlet, 1969-2002.

Year	Chinook	Sockeye	Coho	Pink	Chum
1969	17.11	6.69	7.00	3.91	7.30
1970	26.81	5.80	6.80	4.00	7.18
1971	25.91	6.55	6.52	3.44	9.26
1972	29.68	6.23	6.28	4.00	6.67
1973	37.62	7.41	6.11	3.71	7.61
1974	36.13	6.79	6.38	4.13	7.22
1975	24.75	6.09	6.83	3.56	7.05
1976	27.43	6.85	6.43	4.03	8.05
1977	28.11	7.55	6.72	3.65	7.97
1978	32.96	7.56	6.36	3.75	7.60
1979	27.52	6.21	6.31	3.32	7.34
1980	26.14	5.93	5.76	3.48	7.33
1981	23.75	6.42	6.53	3.52	7.66
1982	28.80	7.01	7.14	3.89	8.24
1983	29.51	6.43	6.89	3.27	7.75
1984	28.61	5.91	7.08	4.03	7.58
1985	27.65	5.64	7.19	3.27	7.61
1986	25.91	5.77	6.41	3.72	7.42
1987	28.99	6.73	6.57	3.50	7.10
1988	29.67	6.61	7.05	3.74	7.67
1989	24.04	6.60	6.58	3.19	7.25
1990	22.60	6.41	6.45	3.40	7.10
1991	21.46	5.63	6.09	3.11	6.56
1992	24.63	6.59	6.43	3.88	6.75
1993	27.47	5.88	5.87	3.05	5.83
1994	31.70	5.69	7.10	3.85	6.94
1995	26.57	5.65	6.44	3.31	7.16
1996	28.28	6.31	6.23	3.65	7.59
1997	27.60	6.55	6.33	3.38	7.32
1998	22.67	5.48	6.88	3.78	7.26
1999	23.89	5.77	5.84	3.10	8.01
2000	22.64	6.33	6.61	3.57	7.72
2001	18.25	6.01	6.56	3.50	6.92
2002	22.30	6.42	6.68	3.80	7.85
Average	26.81	6.34	6.54	3.60	7.39

<sup>a</sup> Total poundage divided by numbers of fish from fish ticket totals.

Appendix A.13. Registered units of gillnet fishing effort by gear type in Cook Inlet . 1960-2002.

Year	DRIFT GILLNET			SET GILLNET			Total
	Resident	Non-Resident	Sub-Total	Resident	Non-Resident	Sub-Total	
1960	221	67	288	511	59	570	858
1961	279	93	372	564	22	586	958
1962	260	112	372	589	28	617	989
1963	333	139	472	626	34	660	1,132
1964	323	145	468	596	35	631	1,099
1965	329	145	474	556	34	590	1,064
1966	328	176	504	580	48	628	1,132
1967	350	186	536	554	50	604	1,140
1968	407	204	611	638	43	681	1,292
1969	497	208	705	686	42	728	1,433
1970	537	220	757	707	65	772	1,529
1971	519	191	710	693	38	731	1,441
1972	419	152	571	672	35	707	1,278
1973	516	146	662	632	43	675	1,337
1974	458	150	608	764	39	803	1,411
1975	291	162	453	613	44	657	1,110
1976	343	171	514	669	42	711	1,225
1977	360	179	539	690	41	731	1,270
1978	366	183	549	698	44	742	1,291
1979	372	182	554	700	44	744	1,298
1980	373	179	552	697	47	744	1,296
1981	414	185	599	688	59	747	1,346
1982	416	175	591	697	51	748	1,339
1983	417	170	587	685	60	745	1,332
1984	426	162	588	672	72	744	1,332
1985	420	170	590	666	65	731	1,321
1986	436	178	614	682	76	758	1,372
1987	422	164	586	666	77	743	1,329
1988	421	163	584	659	82	741	1,325
1989	420	165	585	648	95	743	1,328
1990	408	174	582	648	97	745	1,327
1991	414	168	582	643	98	741	1,323
1992	405	178	583	638	107	745	1,328
1993	400	182	582	634	106	740	1,322
1994	392	187	579	620	117	737	1,316
1995	391	186	577	618	120	738	1,315
1996	392	190	582	622	123	745	1,327
1997	392	189	581	622	123	745	1,326
1998	394	185	579	622	123	745	1,324
1999	389	186	575	622	123	745	1,320
2000	393	183	576	621	124	745	1,321
2001	394	180	574	625	119	744	1,318
2002	395	177	572	619	124	743	1,315

Source: 1960-1974 ADF&G unpublished reports, 1975-2002 Commercial Fisheries Entry Commission.

[http://www.cfec.state.ak.us/menus/mnus\\_pmt.htm](http://www.cfec.state.ak.us/menus/mnus_pmt.htm)

Appendix A.14. Forecast<sup>a</sup> and projected<sup>b</sup> commercial harvests of salmon by species, Upper Cook Inlet, 1984-2002.

Year	Sockeye			Coho			Pink			Chum			Chinook		
	Forecast	Actual <sup>c</sup>	Error	Projected	Actual <sup>c</sup>	Error	Projected	Actual <sup>c</sup>	Error	Projected	Actual <sup>c</sup>	Error	Projected	Actual <sup>c</sup>	Error
1984	2,200,000	2,102,767	-4%	250,000	442,619	77%	1,700,000	622,510	-63%	350,000	684,124	95%	14,000	8,819	-37%
1985	3,700,000	4,060,260	10%	250,000	667,213	167%	112,500	87,828	-22%	700,000	772,829	10%	17,500	24,086	38%
1986	4,200,000	4,787,982	14%	450,000	756,830	68%	1,250,000	1,299,360	4%	900,000	1,134,173	26%	32,500	39,240	21%
1987	4,800,000	9,500,186	98%	500,000	451,404	-10%	150,000	109,801	-27%	1,000,000	349,132	-65%	30,000	39,661	32%
1988	5,300,000	6,834,342	29%	400,000	560,022	40%	400,000	469,972	17%	800,000	708,573	-11%	35,000	29,060	-17%
1989	2,500,000	5,010,698	100%	400,000	339,201	-15%	100,000	67,430	-33%	800,000	122,027	-85%	30,000	26,742	-11%
1990	4,300,000	3,604,259	-16%	250,000	501,643	101%	600,000	603,434	1%	400,000	351,123	-12%	25,000	16,105	-36%
1991	3,200,000	2,178,331	-32%	400,000	426,487	7%	90,000	14,663	-84%	500,000	280,223	-44%	20,000	13,542	-32%
1992	3,600,000	9,108,353	153%	400,000	468,930	17%	400,000	695,861	74%	350,000	274,303	-22%	20,000	17,171	-14%
1993	2,500,000	4,755,329	90%	450,000	306,882	-32%	25,000	100,934	304%	350,000	122,770	-65%	15,000	18,871	26%
1994	2,000,000	3,565,586	78%	400,000	583,793	46%	600,000	523,434	-13%	250,000	303,177	21%	15,000	19,941	33%
1995	2,700,000	2,951,827	9%	400,000	446,954	12%	100,000	133,575	34%	250,000	529,422	112%	15,000	17,893	19%
1996	3,300,000	3,888,922	18%	400,000	321,668	-20%	600,000	242,911	-60%	350,000	156,501	-55%	15,000	14,306	-5%
1997	5,300,000	4,176,738	-21%	400,000	152,404	-62%	100,000	70,933	-29%	250,000	103,036	-59%	15,000	13,292	-11%
1998	2,500,000	1,219,242	-51%	300,000	160,660	-46%	300,000	551,260	84%	200,000	95,654	-52%	17,000	8,124	-52%
1999	2,000,000	2,680,707	34%	300,000	125,908	-58%	75,000	16,174	-78%	200,000	174,541	-13%	16,000	14,383	-10%
2000	3,000,000	1,322,482	-56%	150,000	236,871	58%	500,000	146,482	-71%	200,000	127,069	-36%	15,000	7,350	-51%
2001	2,700,000	1,826,833	-32%	300,000	113,311	-62%	50,000	72,559	45%	250,000	84,494	-66%	13,000	9,295	-29%
2002	2,200,000	2,773,118	26%	160,000	246,281	54%	170,000	446,960	163%	120,000	237,949	98%	10,000	12,714	27%
<b>Avg.</b>	<b>3,263,158</b>	<b>4,018,314</b>	<b>23%</b>	<b>345,263</b>	<b>384,688</b>	<b>11%</b>	<b>385,395</b>	<b>330,320</b>	<b>-14%</b>	<b>432,632</b>	<b>347,954</b>	<b>-20%</b>	<b>19,474</b>	<b>18,452</b>	<b>-5%</b>

<sup>a</sup> Harvest forecasts have typically been prepared using average return per spawner values, parent-year escapements and average marine maturity schedules or time series modeling tempered by available juvenile production data or combinations of these data sets.

<sup>b</sup> Harvest projections are prepared using subjective estimates of parent-year escapements, gross trends in harvest, and expected intensity of fishery.

<sup>c</sup> Actual harvests prior to 2002 reflect minor adjustments to harvest database.

Table A.15. Subsistence and personal use salmon harvest, Upper Cook Inlet, 1980-2002.

Fishery	No. of Permits	Chinook	Sockeye	Coho	Pink	Chum
<b><u>Tvonek Subsistence</u></b>						
1980	67	1,757	235	0	0	0
1981	70	2,002	269	64	32	15
1982	69	1,590	310	113	14	4
1983	75	2,665	187	59	0	6
1984	75	2,200	266	79	3	23
1985	76	1,472	164	91	0	10
1986	65	1,676	203	223	50	46
1987	64	1,610	166	149	10	24
1988	47	1,587	91	253	8	12
1989	49	1,250	85	115	0	1
1990	42	781	66	352	20	12
1991	57	902	26	58	0	0
1992	57	907	75	234	7	19
1993	62	1,370	57	77	19	17
1994	49	770	85	101	0	22
1995	55	1,317	45	153	0	15
1996	49	1,039	68	137	21	7
1997	42	639	101	137	0	8
1998	74	978	163	64	1	2
1999	76	1,230	144	94	32	11
2000	60	1,157	63	87	6	0
2001	84	976	172	49	4	6
2002	102	898	76	127	17	4
<b><u>Non-Commercial Gillnet</u></b>						
1981	1,108	68	466	12,713	149	305
<b><u>Kasilof Personal Use</u></b>						
1982	649	372	7,543	24	17	0
1983	684	307	8,846	0	0	0
1984	698	165	12,926	0	0	0
1985	692	203	10,746	0	0	0
1986	N/A	168	9,609	0	0	0
1987	N/A	184	9,375	0	0	0
1988	N/A	118	9,803	0	0	0
1989	N/A	186	9,928	0	0	0
1990	N/A	133	7,123	0	0	0
1991	N/A	34	8,380	0	0	0
1993	N/A	47	7,942	0	0	0
1996	349	45	9,161	0	12	1
1997	514	62	16,838	1	18	3
<b><u>Fall Coho Personal Use/Subsistence</u></b>						
1983	295	0	0	712	0	0
1984	309	1	2	2,261	10	7
1985	998	50	805	11,265	108	53
1986	892	0	0	2,422	0	0
1987	486	8	9	2,213	2	37
1988	449	2	19	2,662	38	10
1989	365	0	0	2,376	0	0
1990	420	0	0	2,290	0	0
1991	360	0	0	2,703	0	8
1993	535	0	0	1,168	23	0
<b><u>Northern/Central Districts Subsistence/ Personal Use</u></b>						
1985	638	117	2,218	1,427	90	121
1991	7,065	550	32,230	3,520	537	1,598
1992	9,200	1,139	46,419	10,320	1,818	1,827
1994	10,127	1,501	53,333	12,181	2,975	1,729
1995	9,300	1,415	61,602	11,186	1,454	1,734
<b><u>Knik Arm Subsistence</u></b>						
1985	405	4	1,649	2,055	48	212



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